SAFETY DATA SHEET
UV PRIMER UW0308

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
   Product name : UV PRIMER UW0308
   Product code : Not available.
   Product description : Not available.
   Product type : Liquid.
   Other means of identification : Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Not applicable.

1.3 Details of the supplier of the safety data sheet
   Bona AB
   Box 210 74
   SE-200 21 Malmö
   Sweden
   Tel. +46(0)40-38 55 00
   e-mail address of person responsible for this SDS : Environment@bona.com

1.4 Emergency telephone number
   National advisory body/Poison Center
   Telephone number :
   Supplier
   Telephone number :
   Hours of operation :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Product definition : Mixture
   Classification according to Directive 1999/45/EC [DPD]
   The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
   Classification : Not classified.

   See Section 16 for the full text of the R phrases or H statements declared above.
   See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
   Risk phrases : This product is not classified according to EU legislation.
   Safety phrases : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
                     S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.
                     S60- This material and its container must be disposed of as hazardous waste.
   Supplemental label elements : Safety Data Sheet available for professional user on request.
   Special packaging requirements :

Date of issue/Date of revision : 2013-03-05.
SECTION 2: Hazards identification

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards
Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product/ingredient name</strong></td>
<td><strong>Identifiers</strong></td>
</tr>
<tr>
<td>2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one</td>
<td>EC: 231-272-0, CAS: 7473-98-5</td>
</tr>
</tbody>
</table>

See Section 16 for the full text of the R-phrases declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Date of issue/Date of revision : 2013-03-05.
SECTION 4: First aid measures

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.
If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂ blanket, powders, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture
Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters
Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Preferably clean with a detergent. Avoid using solvents.

Date of issue/Date of revision : 2013-03-05.
SECTION 6: Accidental release measures

6.4 Reference to other sections

: See Section 1 for emergency contact information.
   See Section 8 for information on appropriate personal protective equipment.
   See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

7.1 Precautions for safe handling

: Use only in well-ventilated areas.
   Keep away from heat, sparks and flame.
   Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.
   Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
   Put on appropriate personal protective equipment (see Section 8).
   Never use pressure to empty. Container is not a pressure vessel.
   Always keep in containers made from the same material as the original one.
   Comply with the health and safety at work laws.

7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations.
   **Notes on joint storage**
   Keep away from: oxidizing agents, strong alkalis, strong acids.
   **Additional information on storage conditions**
   Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.
   Keep container tightly closed.
   Keep away from sources of ignition. No smoking. Prevent unauthorized access.
   Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

7.3 Specific end use(s)

   **Recommendations**
   : Not available.

   **Industrial sector specific solutions**
   : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

   **Occupational exposure limits**
   No exposure limit value known.

   **Recommended monitoring procedures**
   : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

   **Derived effect levels**
   No DELs available.

   **Predicted effect concentrations**
   No PECs available.

Date of issue/Date of revision : 2013-03-05.
SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

**Appropriate engineering controls**: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

**Individual protection measures**

**Hygiene measures**: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

**Skin protection**

**Hand protection**: Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Gloves**: For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user’s risk assessment.

**Body protection**

**Other skin protection**: Personnel should wear protective clothing.

**Respiratory protection**

**Environmental exposure controls**: In situations where misting or flying may occur, use appropriate certified respirators.

Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state**: Liquid.

**Color**: Clear. White.

**Odor**: Acrylic.

**Odor threshold**: Not available.

**pH**: Not available.

**Melting point/freezing point**: Not available.

**Initial boiling point and boiling range**: Not available.

**Flash point**: Closed cup: >100°C

**Evaporation rate**: Not available.

**Flammability (solid, gas)**: Not available.

**Burning time**: Not applicable.

**Burning rate**: Not applicable.

**Upper/lower flammability or explosive limits**: Not available.

**Vapor pressure**: Not available.

**Vapor density**: Not available.

**Relative density**: 1.05

**Solubility(ies)**: Soluble in the following materials: cold water and hot water.

Date of issue/Date of revision : 2013-03-05.
**SECTION 9: Physical and chemical properties**

- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Dynamic: 800 mPa·s
- **Explosive properties**: Not available.
- **Oxidizing properties**: Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability**: Hazardous reactions or instability may occur under certain conditions of storage or use.

**10.3 Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid**: This preparation contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermally. Unintentional contact with them should be avoided.

**10.5 Incompatible materials**: Keep away from: free radical initiators, peroxides, strong alkalis, reactive metals.

**10.6 Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion may cause nausea, weakness and central nervous system effects.

**Acute toxicity**

- **Conclusion/Summary**: Not available.

- **Irritation/Corrosion**
  - **Conclusion/Summary**: Not available.

- **Sensitization**
  - **Conclusion/Summary**: Not available.

**Mutagenicity**

- **Conclusion/Summary**: Not available.

**Carcinogenicity**

- **Conclusion/Summary**: Not available.

**Date of issue/Date of revision**: 2013-03-05.
SECTION 11: Toxicological information

Reproductive toxicity
Conclusion/Summary : Not available.

Teratogenicity
Conclusion/Summary : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity
There are no data available on the preparation itself. Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

Conclusion/Summary : Not available.

12.2 Persistence and degradability
Conclusion/Summary : Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (Koc) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment
PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations.

13.1 Waste treatment methods
Product
Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Yes.
SECTION 13: Disposal considerations

European waste catalogue (EWC): The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging
Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>ADN/ADNR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

| 14.2 UN proper shipping name | | | |
|-----------------------------| | | |
| Not available. | - | Not available. | Not available. |

| 14.3 Transport hazard class(es) | | | |
|-------------------------------| | | |
| Not available. | - | Not available. | Not available. |

<p>| 14.4 Packing group | | | |</p>
<table>
<thead>
<tr>
<th>-------------------</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

| 14.5 Environmental hazards | | | |
|---------------------------| | | |
| No. | No. | No. | No. |

| 14.6 Special precautions for user | Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. | Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. | Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. | Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |

| Additional information | - | - | - | - |

| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not available. |
SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Other EU regulations

VOC for Ready-for-Use Mixture

: Not applicable.

Europe inventory

: Not determined.

Black List Chemicals

: Not listed

Priority List Chemicals

: Not listed

Integrated pollution prevention and control list (IPPC) - Air

: Not listed

Integrated pollution prevention and control list (IPPC) - Water

: Not listed

Industrial use

: The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

International regulations

Chemical Weapons Convention List Schedule I Chemicals

: Not listed

Chemical Weapons Convention List Schedule II Chemicals

: Not listed

Chemical Weapons Convention List Schedule III Chemicals

: Not listed

15.2 Chemical Safety Assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE code

: 4

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Date of issue/Date of revision

: 2013-03-05.
### Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.
1. Identification of the preparation and of the company

Product name and/or code : UV LIGHT FILLER UL0520/UL052030000
Manufacturer : Bona Coatings (Dalian) Co., Ltd.
Huaihe Middle Road, No.99 - 3A
Dalian Development Area
Liaoning Province
P.C. 116620, China
Tel. +86-411-87 585 500
Fax +86-411-87 585 288

e-mail address of person responsible for this SDS : marie.holmgren@bona.com
Product use : UV-Filler

2. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xi; R36/37/38
R43
N; R51/53

Human health hazards : Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

<table>
<thead>
<tr>
<th>Chemical name*</th>
<th>CAS number</th>
<th>%</th>
<th>EC number</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>42978-66-5</td>
<td>10 - 25</td>
<td>256-032-2</td>
<td>Xi; R36/37/38, R43, N; R51/53 [1]</td>
</tr>
<tr>
<td>2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one</td>
<td>7473-98-5</td>
<td>1 - 2.5</td>
<td>231-272-0</td>
<td>Xi; R36/37/38, R43, N; R51/53, Xn; R22, N; R50/53 [1]</td>
</tr>
</tbody>
</table>

See section 16 for the full text of the R-phrases declared above

There are no ingredients or additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

4. First aid measures

First aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

Date of issue/Date of revision : 2009-03-05.
4. First aid measures

**Skin contact**: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

**Eye contact**: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes.

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

5. Fire-fighting measures

**Extinguishing media**: Recommended: alcohol-resistant foam, CO₂ blanket, water spray or mist. Not to be used: water jet.

**Recommendations**: Fire will produce dense black acrid smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.

6. Accidental release measures

**Personal precautions**: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

**Spill**: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Preferably clean with a detergent. Avoid using solvents. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

**Handling**: Use only in well-ventilated areas.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used.

Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one.

Put on appropriate personal protective equipment (see section 8).

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Comply with the health and safety at work laws.

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**Date of issue/Date of revision**: 2009-03-05.
7. Handling and storage

**Storage**
Store in accordance with local regulations. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep away from heat and direct sunlight.

Keep away from: oxidizing agents, strong alkalis, strong acids.
No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.
Do not empty into drains.

8. Exposure controls/personal protection

**Engineering measures**
Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

**Occupational exposure limits**
Not available.

**Personal protective equipment**

**Respiratory system**
In situations where misting or flying may occur, use appropriate certified respirators.
Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

**Skin and body**
Personnel should wear protective clothing.

**Hands**
For prolonged or repeated handling, use the following type of gloves:
Recommended: nitrile rubber
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user’s risk assessment.

**Eyes**
Use safety eyewear designed to protect against splash of liquids.

**Environmental exposure controls**
Do not allow to enter drains or watercourses.

9. Physical and chemical properties

**Physical state**
Liquid. [Viscous liquid.]

**Odor**
Acrylic

**Color**
Yellow. [Light]

**Flash point**
Closed cup: >100°C (>212°F)

**Viscosity**
Dynamic: 22000 mPa·s (22000 cP)

**Relative density**
1.25

**Solubility**
Insoluble in the following materials: cold water and hot water.
10. Stability and reactivity

This preparation contains materials which are unstable under the following conditions: strong UV sources, free radical initiators, peroxides, strong alkalis, reactive metals. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

11. Toxicological information

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 2 and 15 for details.

Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc.

May cause allergic skin reactions with repeated exposure. If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacrylate. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacrylate, 2-butoxyethanol, 2-ethylhexane-1-ol, Cyclohexane, 1-Octene. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary** : Not available.

**Chronic toxicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

12. Ecological information

There is no data available on the preparation itself.

Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 15 for details.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>-</td>
<td>Acute EC50 55 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Acute LC50 50 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Acute LC50 5 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Conclusion/Summary** : Not available.

**Ecological information**

**Biodegradability**

**Conclusion/Summary** : Not available.

**Product/ingredient name**

<table>
<thead>
<tr>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision** : 2009-03-05.
12. Ecological information

Tripropylene glycol diacrylate
- - Not readily

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>2.77</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

13. Disposal considerations

Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations.

European waste catalogue (EWC) : The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Hazardous waste : Yes.

14. Transport information

Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Land - road/railway

UN number : UN3082
Transport document name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tripropylene glycol diacrylate, 2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one)
ADR/RID Class : 9
Packing group : III
ADR/RID Label :

Sea

UN number : UN3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tripropylene glycol diacrylate, 2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one)
Special provisions : Not available.
Marine pollutant substances : Tripropylene glycol diacrylate
IMDG Class : 9
Packing group : III
IMDG Label :

Marine pollutant : P
Emergency schedules (EmS) : F-A,S-F

Air

UN number : UN3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tripropylene glycol diacrylate, 2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one)
Special provisions : Not available.
ICAO/IATA Classification : 9
Packing group : III

Date of issue/Date of revision : 2009-03-05.
14. Transport information

The "viscosity exemption" provisions do not apply to air transport.

ICAO/IATA label:

Inland waterways
Proper shipping name: -
Packing group: -

15. Regulatory information

EU regulations: The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

Hazard symbol or symbols:

Irritant, Dangerous for the environment

Risk phrases:
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S24- Avoid contact with skin.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.
S37- Wear suitable gloves.
S60- This material and its container must be disposed of as hazardous waste.

Contains: Tripropylene glycol diacrylate

Europe inventory: Europe inventory: Not determined.

Industrial use: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. Other information

CEPE Classification: 4

Full text of R-phrases referred to in sections 2 and 3 - Europe:
R22- Harmful if swallowed.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Date of issue/Date of revision: 2009-03-05.
Version: 1

 Indicates information that has changed from previously issued version.

Notice to reader

Date of issue/Date of revision: 2009-03-05.
16. Other information

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product’s properties.
SAFETY DATA SHEET
UV BASE COAT UB0123

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : UV BASE COAT UB0123
Product code : Not available.
Product description : UV-Base coat
Product type : Liquid.
Other means of identification : Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Not applicable.

1.3 Details of the supplier of the safety data sheet
Bona AB
Box 210 74
SE-200 21 MALMÖ
SWEDEN
Tel. +46-(0)40-38 55 00
E-mail address of person responsible for this SDS : Environment@bona.com

1.4 Emergency telephone number

National advisory body/Poison Center
Telephone number :
Supplier
Telephone number :
Hours of operation :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture
Classification according to Directive 1999/45/EC [DPD]
The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Classification : Xi; R36/37/38
               R43
               R52/53

Human health hazards : Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Date of issue/Date of revision : 2012-10-10.
SECTION 2: Hazards identification

**Hazard symbol or symbols**: 
![X]

**Indication of danger**: Irritant

**Risk phrases**:
- R36/37/38- Irritating to eyes, respiratory system and skin.
- R43- May cause sensitization by skin contact.
- R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases**:
- S24- Avoid contact with skin.
- S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.
- S37- Wear suitable gloves.
- S60- This material and its container must be disposed of as hazardous waste.

**Hazardous ingredients**:
- Tripropylene glycol diacrylate
- 1,4-butane diol diacrylate
- Trimethylolpropane polyoxyethylene triacrylate

**Supplemental label elements**:
- Not applicable.

**Special packaging requirements**
- Containers to be fitted with child-resistant fastenings: Not applicable.
- Tactile warning of danger: Not applicable.

**2.3 Other hazards**
- Other hazards which do not result in classification: Not available.

SECTION 3: Composition/information on ingredients

**Substance/mixture**: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>EC: 256-032-2 CAS: 42978-66-5</td>
<td>10-25</td>
<td>Xi; R36/37/38 R43 N; R51/53 Xn; R21 C; R34 R43</td>
<td>Aquatic Chronic 2, H411</td>
<td>[1]</td>
</tr>
<tr>
<td>1,4-butane diol diacrylate</td>
<td>EC: 213-979-6 CAS: 1070-70-8</td>
<td>1-5</td>
<td>Xn; R22</td>
<td>Acute Tox. 3, H311</td>
<td>[1]</td>
</tr>
<tr>
<td>2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one</td>
<td>EC: 231-272-0 CAS: 7473-98-5</td>
<td>3-7</td>
<td>Xn; R22</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>Trimethylolpropane polyoxyethylene triacrylate</td>
<td>EC: 239-701-3 CAS: 15625-89-5 Index: 607-111-00-9 REACH #: 02-2119849725-26</td>
<td>1-5</td>
<td>Xi; R36/38 R43 Xn; R22</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Acute Tox. 4, H302</td>
<td>[1]</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>EC: 204-881-4 CAS: 128-37-0</td>
<td>0.1-0.25</td>
<td>Xi; R36/37/38 R43 N; R50/53</td>
<td>Aquatic Acute 1, H400 Aquatic Chronic 1, H410</td>
<td>[1]</td>
</tr>
</tbody>
</table>

See Section 16 for the full text of the R-phrases declared above.

**Date of issue/Date of revision**: 2012-10-10.

Page: 2/12
SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxylethylene triacrylate, Phenol, 4-methoxy, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, Phosphine, triphenyl-. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxylethylene triacrylate, Phenol, 4-methoxy, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, Phosphine, triphenyl-. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.
SECTION 4: First aid measures

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

**Suitable extinguishing media**
Recommended: alcohol-resistant foam, CO₂ blanket, powders, water spray or mist.

**Unsuitable extinguishing media**
Do not use water jet.

5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture**
Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous thermal decomposition products**
Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

**Special protective actions for fire-fighters**
Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters**
Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**
Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

**For emergency responders**
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Keep away from heat, sparks and flame.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).

Date of issue/Date of revision: 2012-10-10.
SECTION 7: Handling and storage

Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.

7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations.

Notes on joint storage
Keep away from: oxidizing agents, strong alkalis, strong acids.

Additional information on storage conditions
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

7.3 Specific end use(s)

Recommendations
: Not available.

Industrial sector specific solutions
: Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits
No exposure limit value known.

Recommended monitoring procedures
: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels
No DELs available.

Predicted effect concentrations
No PECs available.

8.2 Exposure controls

Appropriate engineering controls
: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures
: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
Skin protection
Hand protection
: Use safety eyewear designed to protect against splash of liquids.

Date of issue/Date of revision
: 2012-10-10.
SECTION 8: Exposure controls/personal protection

Gloves: For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection: Personnel should wear protective clothing.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: In situations where misting or flying may occur, use appropriate certified respirators.

Environmental exposure controls: Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid.
Color: Grayish-white.
Odor: Acrylic.
Odor threshold: Not available.

pH: Not available.

Melting point/freezing point: Not available.
Initial boiling point and boiling range: Not available.
Flash point: Closed cup: >100°C
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Burning time: Not applicable.
Burning rate: Not applicable.

Upper/lower flammability or explosive limits: Not available.

Vapor pressure: Not available.
Vapor density: Not available.
Relative density: 1.12

Solubility(ies): Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Dynamic: 2000 mPa·s
Explosive properties: Not available.
Oxidizing properties: Not available.

9.2 Other information

No additional information.
SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Hazardous reactions or instability may occur under certain conditions of storage or use.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : This preparation contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

10.5 Incompatible materials : Keep away from: free radical initiators, peroxides, strong alkalis, reactive metals.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacrylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, Phenol, 4-methoxy, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, Phosphine, triphenyl-. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacrylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, Phenol, 4-methoxy, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, Phosphine, triphenyl-. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>1,4-butane diol diacrylate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>730 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Trimethylolpropane polyoxyethylene triacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethyllethyl)-4-methyl-</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>5170 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Guinea pig</td>
<td>10700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Mouse</td>
<td>650 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>890 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.

**Irritation/Corrosion** :
SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>polyoxyethylene triacrylate</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.
Sensitization
Conclusion/Summary : Not available.
Mutagenicity
Conclusion/Summary : Not available.
Carcinogenicity
Conclusion/Summary : Not available.
Reproductive toxicity
Conclusion/Summary : Not available.
Teratogenicity
Conclusion/Summary : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity
There are no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 3 and 15 for details.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>Acute EC50 55 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td>1,4-butane diol diacrylate</td>
<td>Acute LC50 50 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute LC50 5 mg/L</td>
<td>Algae</td>
<td>48 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute EC50 4,59 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute LC50 1 to 2,15 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute EC50 0,48 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute EC50 0,61 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>Acute IC50 &gt;0,4 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP ow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>2,77</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (Koc) : Not available.

Date of issue/Date of revision : 2012-10-10.
SECTION 12: Ecological information

Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste: Yes.

European waste catalogue (EWC): The European Waste Catalogue classification of this product, when disposed of as waste, is:
08 01 11* waste paint and varnish containing organic solvents or other dangerous substances.

If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>ADN/ADNR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Not available.</td>
<td>-</td>
<td>Not available.</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Not available.</td>
<td>-</td>
<td>Not available.</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 2012-10-10.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.6 Special precautions for user</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations

VOC for Ready-for-Use Mixture: Not applicable.

Europe inventory: Not determined.

Black List Chemicals: Not listed

Priority List Chemicals: Not listed

Integrated pollution prevention and control list (IPPC) - Air: Not listed

Integrated pollution prevention and control list (IPPC) - Water: Not listed

Industrial use: The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

International regulations

Chemical Weapons Convention List Schedule I Chemicals: Not listed

Chemical Weapons Convention List Schedule II Chemicals: Not listed

Date of issue/Date of revision: 2012-10-10.
SECTION 15: Regulatory information

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE code : 4

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUP statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317
Aquatic Chronic 3, H412

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements : H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] : Acute Tox. 3, H311 ACUTE TOXICITY: SKIN - Category 3
Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1
Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1
Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2
Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases : R21- Harmful in contact with skin.
R22- Harmful if swallowed.
R34- Causes burns.
R36/38- Irritating to eyes and skin.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Date of issue/Date of revision : 2012-10-10.
## SECTION 16: Other information

| Full text of classifications [DSD/DPD] | C - Corrosive  
|                                      | Xn - Harmful  
|                                      | Xi - Irritant  
|                                      | N - Dangerous for the environment |
| Date of printing                     | 2012-10-10. |
| Date of issue/ Date of revision      | 2012-10-10. |
| Date of previous issue               | No previous validation. |
| Version                              | 2 |

### Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.
SAFETY DATA SHEET
BONA UV BASE COAT UB9020

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation
Product name : BONA UV BASE COAT UB9020
Product code : Not available.
Product description : Not available.

Use of the substance/preparation
Product use : UV-Base coat
None identified.

Company/undertaking identification
Manufacturer : Bona AB
Box 210 74
SE-200 21 Malmö
Sweden
Tel. +46-(0)40-38 55 00

E-mail address of person responsible for this SDS : marie.holmgren@bona.com

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification according to Regulation (EC) 1907/2006 (REACH)
Classification : Xi; R36
R43
R52/53

Human health hazards : Irritating to eyes. May cause sensitization by skin contact.

Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or assigned an occupational exposure limit.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
<th>Number</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic Resin</td>
<td></td>
<td>75 - 100</td>
<td>256-032-2</td>
<td>Xi; R36 [1], R52/53</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>42978-66-5</td>
<td>2.5 - 10</td>
<td>231-272-0</td>
<td>Xi; R36 [1], R52/53, R43, N; R51/53 Xn; R22</td>
</tr>
<tr>
<td>2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one</td>
<td>7473-98-5</td>
<td>2.5 - 10</td>
<td>231-272-0</td>
<td>Xi; R36 [1], R52/53</td>
</tr>
</tbody>
</table>

See section 16 for the full text of the R-phrases declared above

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] PBT-substance
[4] vPvB-substance

Occupational exposure limits, if available, are listed in section 8.

Date of issue/Date of revision : 2011-03-07.
4. FIRST AID MEASURES

First aid measures

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Recommended: alcohol-resistant foam, CO₂ blanket, powders, water spray or mist.

Extinguishing media not to be used: Do not use water jet.

Special exposure hazards: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).

Environmental precautions: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Methods for cleaning up: Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. HANDLING AND STORAGE

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

Handling: Use only in well-ventilated areas.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Keep container tightly closed. Keep away from heat, sparks and flame.

Always keep in containers made from the same material as the original one.

Put on appropriate personal protective equipment (see section 8).

Never use pressure to empty. Container is not a pressure vessel.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Comply with the health and safety at work laws.

Storage: Store in accordance with local regulations. Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep away from sources of ignition. Keep away from: oxidizing agents, strong alkalis, strong acids.

No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

Date of issue/Date of revision: 2011-03-07.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limits**: Not available.

**Exposure controls**:

- **Respiratory system**: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

- **Skin and body**: Personnel should wear protective clothing.

- **Hands/Gloves**: For prolonged or repeated handling, use the following type of gloves:
  
  Recommended: nitrile rubber

  Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

  The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

  The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user’s risk assessment.

  **Eyes**: Use safety eyewear designed to protect against splash of liquids.

  **Environmental exposure controls**: Do not allow to enter drains or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state**: Liquid.

**Odor**: Acrylic.

**Color**: White to yellowish.

**Flash point**: Closed cup: >100°C (>212°F)

**Viscosity**: Dynamic: 2000 mPa·s (2000 cP)

**Relative density**: 1,12

**Solubility**: Insoluble in the following materials: cold water and hot water.

10. STABILITY AND REACTIVITY

**Conditions to avoid**: This preparation contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

**Materials to avoid**: Keep away from: free radical initiators, peroxides, strong alkalis, reactive metals.

**Hazardous decomposition products**: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

**Toxicokinetics**

- **Absorption**: Not available.

- **Distribution**: Contains material which causes damage to the following organs: upper respiratory tract, skin, eye, lens or cornea.

- **Metabolism**: Not available.

- **Elimination**: Not available.

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

**Date of issue/Date of revision**: 2011-03-07.
11. TOXICOLOGICAL INFORMATION

If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacrylate. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacrylate. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary** : Not available.

**Chronic toxicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Conclusion/Summary** : Not available.

12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 3 and 15 for details.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>Acute EC50 55 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 50 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Conclusion/Summary** : Not available.

**Ecological information**

**Persistence/degradability**

**Conclusion/Summary** : Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>2.77</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**PBT** : Not applicable.

**vPvB** : Not applicable.
13. DISPOSAL CONSIDERATIONS

Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.

**European waste catalogue (EWC)**

The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

**Hazardous waste**

Yes.

14. TRANSPORT INFORMATION

**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Sea**

- **Special provisions**: Not available.
- **Marine pollutant**: No.

**Air**

- **Special provisions**: Not available.

**Inland waterways**

- **Proper shipping name**: -
- **Packing group**: -

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

15. REGULATORY INFORMATION

**Chemical Safety Assessment**

This product contains substances for which Chemical Safety Assessments are still required.

**EU regulations**

The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

**Hazard symbol or symbols**

![Hazard symbol](image)

- Irritant

**Risk phrases**

- R36- Irritating to eyes.
- R43- May cause sensitization by skin contact.
- R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases**

- S24- Avoid contact with skin.
- S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.
- S37- Wear suitable gloves.
- S60- This material and its container must be disposed of as hazardous waste.

**Contains**

- Tripropylene glycol diacrylate

**VOC for Ready-for-Use Mixture**

- Not applicable.

**Detergents - Regulation (EC) No 907/2006**

- Not applicable.

**Europe Additional inventory**

- Not determined.

**Additional warning phrases (CEPE)**

- Not applicable.

The information in this Safety Data Sheet is required pursuant to Annex II to Regulation (EC) No 1907/2006.

**Date of issue/Date of revision**

2011-03-07.
15. REGULATORY INFORMATION

Industrial use: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. OTHER INFORMATION

CEPE Classification: 4
Full text of R-phrases referred to in sections 2 and 3 - Europe:
- R22- Harmful if swallowed.
- R36- Irritating to eyes.
- R36/37/38- Irritating to eyes, respiratory system and skin.
- R43- May cause sensitization by skin contact.
- R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) 1272/2008 (CLP):
AQUATIC TOXICITY (CHRONIC) - Category 3

Restrictions on use:
None identified.

Date of issue/ Date of revision: 2011-03-07.
Version: 1

Notice to reader:
The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

Annex

Date of issue/Date of revision: 2011-03-07.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
   Product name : UV BASE COAT MATT UB0118
   Product code : Not available.
   Product description : UV-Base coat
   Product type : Liquid.
   Other means of identification : Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Not applicable.

1.3 Details of the supplier of the safety data sheet
   Bona AB
   Box 210 74
   SE-200 21 MALMÖ
   SWEDEN
   Tel. +46-(0)40-38 55 00
   e-mail address of person responsible for this SDS
   : Environment@bona.com

1.4 Emergency telephone number
   National advisory body/Poison Center
   Telephone number :
   Supplier
   Telephone number :
   Hours of operation :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Product definition : Mixture
   Classification according to Directive 1999/45/EC [DPD]
   The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
   Classification : Xi; R36/37/38
   R43
   N; R51/53
   Human health hazards : Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
   Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Date of issue/Date of revision : 2012-10-29.
SECTION 2: Hazards identification

Hazard symbol or symbols : [X]

Indication of danger : Irritant, Dangerous for the environment

Risk phrases : R36/37/38- Irritating to eyes, respiratory system and skin. R43- May cause sensitization by skin contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water. S37- Wear suitable gloves. S60- This material and its container must be disposed of as hazardous waste.

Hazardous ingredients : Tripropylene glycol diacrylate
1,4-butyne diol diacrylate
Trimethylolpropane polyoxyethylene triacrylate

Supplemental label elements : Not applicable.

Special packaging requirements
Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>EC: 256-032-2 CAS: 42978-66-5</td>
<td>25-35</td>
<td>Xi; R36/37/38 R43 N; R51/53 Xi; R36/38</td>
<td>Aquatic Chronic 2, H411</td>
<td>[1]</td>
</tr>
<tr>
<td>POLYESTER ACRYLATE</td>
<td>-</td>
<td>1-5</td>
<td>Xn; R22</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>2-Hydroxy-2-Methyl-1-Phenyl Propan-1-one 1,4-butyne diol diacrylate</td>
<td>EC: 231-272-0 CAS: 7473-98-5 EC: 213-979-6 CAS: 1070-70-8</td>
<td>3-7</td>
<td>Xn; R21 C; R34 R43</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>Trimethylolpropane polyoxyethylene triacrylate</td>
<td>EC: 239-701-3 CAS: 15625-89-5 Index: 607-111-00-9</td>
<td>1-5</td>
<td>Xi; R36/38 R43</td>
<td>Acute Tox. 3, H311</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 16 for the full text of the R-phrases declared above.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date of issue/Date of revision : 2012-10-29.
SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. DO NOT use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacrylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol, Phenol, 4-methoxy, Trimethylolpropane polyoxyethylene triacrylate. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacrylate, 1,4-butane diol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol, Phenol, 4-methoxy, Trimethylolpropane polyoxyethylene triacrylate. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.
SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Recommended: alcohol-resistant foam, CO₂ blanket, powders, water spray or mist.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters: Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections: See Section 1 for emergency contact information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

7.1 Precautions for safe handling: Use only in well-ventilated areas.

Keep away from heat, sparks and flame.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8).

Date of issue/Date of revision: 2012-10-29.
SECTION 7: Handling and storage

Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.

7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations.  
**Notes on joint storage**
Keep away from: oxidizing agents, strong alkalis, strong acids.  
**Additional information on storage conditions**
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.
Keep container tightly closed.
Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

7.3 Specific end use(s)

**Recommendations**: Not available.

**Industrial sector specific solutions**: Not available.

---

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

**Occupational exposure limits**
No exposure limit value known.

**Recommended monitoring procedures**
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels**
No DELs available.

**Predicted effect concentrations**
No PECs available.

8.2 Exposure controls

**Appropriate engineering controls**
Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

**Individual protection measures**

**Hygiene measures**
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**
Use safety eyewear designed to protect against splash of liquids.

**Skin protection**
Hand protection
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
SECTION 8: Exposure controls/personal protection

**Gloves**: For prolonged or repeated handling, use the following type of gloves:

- **Recommended**: nitrile rubber

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user’s risk assessment.

**Body protection**: Personnel should wear protective clothing.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: In situations where misting or flying may occur, use appropriate certified respirators.

**Environmental exposure controls**: Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

- **Physical state**: Liquid.
- **Color**: White to yellowish. [Light]
- **Odor**: Acrylic.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point/freezing point**: Not available.
- **Initial boiling point and boiling range**: Not available.
- **Flash point**: Closed cup: >100°C
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Burning time**: Not applicable.
- **Burning rate**: Not applicable.
- **Upper/lower flammability or explosive limits**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 1.12
- **Solubility(ies)**: Insoluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Dynamic: 1000 mPa·s
- **Explosive properties**: Not available.
- **Oxidizing properties**: Not available.

9.2 Other information

No additional information.
SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Hazardous reactions or instability may occur under certain conditions of storage or use.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : This preparation contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

10.5 Incompatible materials : Keep away from: free radical initiators, peroxides, strong alkalis, reactive metals.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains Tripropylene glycol diacrylate, 1,4-butanediol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol, Phenol, 4-methoxy, Trimethylolpropane polyoxyethylene triacrylate. May produce an allergic reaction.

The following products have sensitizing properties: Tripropylene glycol diacrylate, 1,4-butanediol diacrylate, Trimethylolpropane polyoxyethylene triacrylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol, Phenol, 4-methoxy, Trimethylolpropane polyoxyethylene triacrylate. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>diacrylate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>730 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>1,4-butanediol diacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Trimethylolpropane</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>5170 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>polyoxyethylene triacrylate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Conclusion/Summary

Not available.

### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>polyoxyethylene triacrylate</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>milligrams</td>
<td></td>
</tr>
</tbody>
</table>

### Conclusion/Summary

Not available.
SECTION 11: Toxicological information

Sensitization
Conclusion/Summary : Not available.

Mutagenicity
Conclusion/Summary : Not available.

Carcinogenicity
Conclusion/Summary : Not available.

Reproductive toxicity
Conclusion/Summary : Not available.

Teratogenicity
Conclusion/Summary : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity
There are no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 3 and 15 for details.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacylate</td>
<td>Acute EC50 55 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td>1,4-butane diol diacylate</td>
<td>Acute LC50 50 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 4,59 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1 to 2,15 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacylate</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacylate</td>
<td>2,77</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

Date of issue/Date of revision : 2012-10-29.
SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.

13.1 Waste treatment methods

**Product**

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste: Yes.

European waste catalogue (EWC): The European Waste Catalogue classification of this product, when disposed of as waste, is:

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances.

If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

**Packaging**

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions**

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

---

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>ADN/ADNR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.1 UN number</strong></td>
<td>3082</td>
<td>Not regulated.</td>
<td>3082</td>
</tr>
<tr>
<td><strong>14.2 UN proper shipping name</strong></td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tripropylene glycol diacrylate)</td>
<td>-</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tripropylene glycol diacrylate)</td>
</tr>
<tr>
<td><strong>14.3 Transport hazard class(es)</strong></td>
<td>9</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td><strong>14.4 Packing group</strong></td>
<td>III</td>
<td>-</td>
<td>III</td>
</tr>
<tr>
<td><strong>14.5 Environmental hazards</strong></td>
<td>Yes.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 2012-10-29.
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.6 Special precautions for user</th>
<th>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>Tunnel code (E)</td>
<td>Emergency schedules (EmS) F-A,S-F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not available.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU Regulation (EC) No. 1907/2006 (REACH)**

- **Annex XIV - List of substances subject to authorization**
  - **Substances of very high concern**
    - None of the components are listed.
  - **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**
    - Not applicable.

**Other EU regulations**

- **VOC for Ready-for-Use Mixture**
  - Not applicable.
- **Europe inventory**
  - Not determined.
- **Black List Chemicals**
  - Not listed
- **Priority List Chemicals**
  - Not listed
- **Integrated pollution prevention and control list (IPPC) - Air**
  - Not listed
- **Integrated pollution prevention and control list (IPPC) - Water**
  - Not listed
- **Industrial use**
  - The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**International regulations**

- **Chemical Weapons Convention List Schedule I Chemicals**
  - Not listed
- **Chemical Weapons Convention List Schedule II Chemicals**
  - Not listed

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**Date of issue/Date of revision** : 2012-10-29.
SECTION 15: Regulatory information

Chemical Weapons Convention List Schedule III Chemicals: Not listed

15.2 Chemical Safety Assessment: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE code: 4

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Sens. 1, H317
Aquatic Chronic 2, H411

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements:
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]:
- Acute Tox. 3, H311 ACUTE TOXICITY: SKIN - Category 3
- Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2
- Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
- Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
- Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases:
- R21- Harmful in contact with skin.
- R22- Harmful if swallowed.
- R34- Causes burns.
- R36/38- Irritating to eyes and skin.
- R36/37/38- Irritating to eyes, respiratory system and skin.
- R43- May cause sensitization by skin contact.
- R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD]:
- C - Corrosive
- Xn - Harmful
- Xi - Irritant
- N - Dangerous for the environment

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Date of issue/ Date of revision: 2012-10-29.
Date of previous issue: No previous validation.
Version: 2
Notice to reader:

Date of issue/Date of revision: 2012-10-29.
SECTION 16: Other information

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- **Product name**: BONA NATURALE TOP COAT UT8115
- **Product code**: Not available.
- **Product description**: UV Top coat
- **Product type**: Liquid.
- **Other means of identification**: Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

Bona AB
Box 210 74
SE-200 21 Malmö
Sweden
Tel. +46-(0)40-38 55 00

**E-mail address of person responsible for this SDS**: marie.holmgren@bona.com

1.4 Emergency telephone number

**National advisory body/Poison Center**

**Telephone number**: 

**Supplier**

**Telephone number**: 

**Hours of operation**: 

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

**Product definition**: Mixture

**Classification according to Directive 1999/45/EC [DPD]**

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

- **Classification**: Xi; R36/38
- **R43**
- **R52/53**

**Human health hazards**: Irritating to eyes and skin. May cause sensitization by skin contact.

**Environmental hazards**: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
SECTION 2: Hazards identification

Hazard symbol or symbols : X

Indication of danger : Irritant

Risk phrases : R36/38- Irritating to eyes and skin.
R43- May cause sensitization by skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S24- Avoid contact with skin.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27/28- After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.
S37- Wear suitable gloves.
S60- This material and its container must be disposed of as hazardous waste.

Hazardous ingredients : 1,6-hexanadiol diacylate
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester
Tripropylene glycol diacylate

Supplemental label elements : Not applicable.

Special packaging requirements
Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards
Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-hexanadiol diacylate</td>
<td>EC: 235-921-9 CAS: 13048-33-4</td>
<td>35-50</td>
<td>Xi; R36/38 R43</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester</td>
<td>EC: 212-782-2 CAS: 868-77-9</td>
<td>1-20</td>
<td>Xi; R36/38 R43</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>Tripropylene glycol diacylate</td>
<td>EC: 256-032-2 CAS: 42978-66-5</td>
<td>1-2,5</td>
<td>Xi; R36/37/38 R43 N; R51/53 Xn; R48/22 N; R51/53</td>
<td>Aquatic Chronic 2, H411</td>
<td>[1]</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains 1,6-hexanodiacylate, 2-Propanoic acid, 2-methyl-, 2-hydroxyethyl ester, Tripropylene glycol diacylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol. May produce an allergic reaction.

The following products have sensitizing properties: 1,6-hexanodiacylate, 2-Propanoic acid, 2-methyl-, 2-hydroxyethyl ester, Tripropylene glycol diacylate, 2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

See toxicological information (Section 11)
SECTION 5: Firefighting measures

5.1 Extinguishing media
- **Suitable extinguishing media**: Recommended: alcohol-resistant foam, CO₂ blanket, powders, water spray or mist.
- **Unsuitable extinguishing media**: Do not use water jet.

5.2 Special hazards arising from the substance or mixture
- **Hazards from the substance or mixture**: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- **Hazardous thermal decomposition products**: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters
- **Special protective actions for fire-fighters**: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- **Special protective equipment for fire-fighters**: Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- **For non-emergency personnel**: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
- **For emergency responders**: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions
- Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up
- Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections
- See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

7.1 Precautions for safe handling
- Use only in well-ventilated areas.
- Keep away from heat, sparks and flame.
- Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Put on appropriate personal protective equipment (see Section 8).
- Never use pressure to empty. Container is not a pressure vessel.
- Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.

Date of issue/Date of revision: 2012-07-16.
### SECTION 7: Handling and storage

#### 7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Notes on joint storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep away from: oxidizing agents, strong alkalis, strong acids.</td>
</tr>
</tbody>
</table>

**Additional information on storage conditions**

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

#### 7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial sector specific solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
</tr>
</tbody>
</table>

### SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels**

No DEls available.

**Predicted effect concentrations**

No PECs available.

#### 8.2 Exposure controls

**Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Use safety eyewear designed to protect against splash of liquids.

**Skin protection**

**Hand protection**

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Gloves**

For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

Date of issue/Date of revision : 2012-07-16.
SECTION 8: Exposure controls/personal protection

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

Body protection

Other skin protection

Respiratory protection

Environmental exposure controls

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user’s risk assessment.

Personnel should wear protective clothing.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

In situations where misting or flying may occur, use appropriate certified respirators.

Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.
Color : White to yellowish.
Odor : Acrylic
Odor threshold : Not available.
pH : Not available.
Melting point/freezing point : Not available.
Initial boiling point and boiling range : Not available.
Flash point : Closed cup: >100°C
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Burning time : Not applicable.
Burning rate : Not applicable.
Upper/lower flammability or explosive limits : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 1,09
Solubility(ies) : Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Dynamic: 700 mPa·s
Explosive properties : Not available.
Oxidizing properties : Not available.

9.2 Other information
No additional information.
SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: Hazardous reactions or instability may occur under certain conditions of storage or use.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: This preparation contains materials which are unstable under the following conditions: exposure to heat, strong UV sources. These could cause the product to polymerize exothermically. Unintentional contact with them should be avoided.

10.5 Incompatible materials: Keep away from: free radical initiators, peroxides, strong alkalis, reactive metals.

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Acrylate components of the preparation have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. If splashed in the eyes, the liquid may cause irritation and reversible damage. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects.

Contains 1,6-hexanoldiacrylate, 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, Tripropylene glycol diacrylate, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol. May produce an allergic reaction.

The following products have sensitizing properties: 1,6-hexanoldiacrylate, 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, Tripropylene glycol diacrylate, 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol. Cases of hypersensitivity may occur, possibly with cross-sensitization to other acrylate materials.

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-hexanoldiacrylate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5050 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Methanone, diphenyl-</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary

Irritation/Corrosion: Not available.

Sensitization: Not available.

Mutagenicity: Not available.

Date of issue/Date of revision: 2012-07-16.
SECTION 11: Toxicological information

Carcinogenicity
Conclusion/Summary : Not available.

Reproductive toxicity
Conclusion/Summary : Not available.

Teratogenicity
Conclusion/Summary : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity
There are no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 3 and 15 for details.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-hexadioldiacrylate</td>
<td>Acute EC50 1,47 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2,59 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 7 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 227 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester</td>
<td>Acute EC50 55 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>Acute EC50 50 mg/L</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 3,5 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 6,8 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 14,75 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.

12.2 Persistence and degradability
Conclusion/Summary : Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-hexadioldiacrylate</td>
<td>-</td>
<td>-</td>
<td>Inherent</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester</td>
<td>-</td>
<td>84%; 28 day(s)</td>
<td>Readily</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
<tr>
<td>Methanone, diphenyl-</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-hexadioldiacrylate</td>
<td>2.81</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester</td>
<td>0.47</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>2.77</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

Date of issue/Date of revision : 2012-07-16.
SECTION 12: Ecological information

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Yes.

European waste catalogue (EWC) : The European Waste Catalogue classification of this product, when disposed of as waste, is:
08 01 11* waste paint and varnish containing organic solvents or other dangerous substances.

If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>ADR/RID</th>
<th>ADN/ADNR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Not available.</td>
<td>-</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Not available.</td>
<td>-</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision : 2012-07-16.
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.6 Special precautions for user</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
<th>Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU Regulation (EC) No. 1907/2006 (REACH)**

- **Annex XIV - List of substances subject to authorization**
  - **Substances of very high concern**
    - None of the components are listed.

- **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**
  - Not applicable.

**Other EU regulations**

- **VOC for Ready-for-Use Mixture**
  - Not applicable.

- **Europe inventory**
  - Not determined.

- **Black List Chemicals**
  - Not listed

- **Priority List Chemicals**
  - Not listed

- **Integrated pollution prevention and control list (IPPC) - Air**
  - Not listed

- **Integrated pollution prevention and control list (IPPC) - Water**
  - Not listed

- **Industrial use**
  - The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**International regulations**

- **Chemical Weapons Convention List Schedule I Chemicals**
  - Not listed

- **Chemical Weapons Convention List Schedule II Chemicals**
  - Not listed

**Date of issue/Date of revision**

2012-07-16.
SECTION 15: Regulatory information

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE code : 4

\[->\] Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Chronic 3, H412

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements : H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] : Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2
Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3

Full text of abbreviated R phrases : R48/22- Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R36/38- Irritating to eyes and skin.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

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Version : 4

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product’s properties.

Date of issue/Date of revision : 2012-07-16.