

# SAFETY DATA SHEET

Pattern Coat Hi-Gloss

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

### 1.1 Product identifier

**Product name** : Pattern Coat Hi Gloss  
**Product code** : PCG  
**Product type** : Liquid.



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

| Identified uses |
|-----------------|
| Not available.  |

### 1.3 Details of the supplier of the safety data sheet

Easy Composites Ltd  
Unit 39, Park Hall Business Village,  
Stoke on Trent, Staffordshire,  
ST3 5XA  
+44 (0)1933663100  
**e-mail address of person responsible for this SDS** : SDS@easycomposites.co.uk

### 1.4 Emergency telephone number

#### Supplier

**Telephone number (Hours of operation)** : +44 (0) 1782 454499 (08:00h - 17:30h, Mon-Fri)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Flam. Liq. 2, H225  
Acute Tox. 4, H332  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
Repr. 1B, H360FD (Fertility and Unborn child)  
STOT RE 1, H372

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 55.3%

**Ingredients of unknown ecotoxicity** : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 55.3%

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

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

**Classification** : F; R11  
Repr. Cat. 2; R60  
Repr. Cat. 3; R63  
Xn; R20, R48/20  
Xi; R36/38

**Physical/chemical hazards** : Highly flammable.

## SECTION 2: Hazards identification

**Human health hazards** : May impair fertility. Possible risk of harm to the unborn child. Also harmful by inhalation. Also harmful: danger of serious damage to health by prolonged exposure through inhalation. Irritating to eyes and skin.

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

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H225 - Highly flammable liquid and vapour.  
 H332 - Harmful if inhaled.  
 H319 - Causes serious eye irritation.  
 H315 - Causes skin irritation.  
 H360FD - May damage fertility. May damage the unborn child.  
 H372 - Causes damage to organs through prolonged or repeated exposure.

### Precautionary statements

**Prevention** : P201 - Obtain special instructions before use.  
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.  
 P260 - Do not breathe vapour.

**Response** : P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

**Storage** : P235 - Keep cool.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : styrene  
 cobalt bis(2-ethylhexanoate)

**Supplemental label elements** : Contains maleic anhydride and cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

### 2.3 Other hazards

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

## SECTION 3: Composition/information on ingredients

**Substance/mixture** : Mixture

**SECTION 3: Composition/information on ingredients**

| Product/ingredient name               | Identifiers                                                                            | %              | Classification                                                                       |                                                                                                                                                         | Type    |
|---------------------------------------|----------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|                                       |                                                                                        |                | 67/548/EEC                                                                           | Regulation (EC) No. 1272/2008 [CLP]                                                                                                                     |         |
| styrene                               | REACH #:<br>01-2119457861-32<br>EC: 202-851-5<br>CAS: 100-42-5<br>Index: 601-026-00-0  | ≥27 -<br><49   | R10<br><br>Repr. Cat. 3; R63<br>Xn; R20, R48/20<br>Xi; R36/38                        | Flam. Liq. 3, H226<br><br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Repr. 2, H361d (Unborn child)<br>STOT RE 1, H372 (ears)    | [1] [2] |
| butanone                              | REACH #:<br>01-2119457290-43<br>EC: 201-159-0<br>CAS: 78-93-3<br>Index: 606-002-00-3   | ≥5 -<br><10    | F; R11<br><br>Xi; R36<br>R66, R67                                                    | Flam. Liq. 2, H225<br><br>Eye Irrit. 2, H319<br>STOT SE 3, H336                                                                                         | [1] [2] |
| Silica, amorphous, fumed, cryst.-free | REACH #:<br>01-2119379499-16<br>CAS: 112945-52-5                                       | ≥1 - <3        | Not classified.                                                                      | Not classified.                                                                                                                                         | [2]     |
| cobalt bis (2-ethylhexanoate)         | REACH #:<br>01-2119524678-29<br>EC: 205-250-6<br>CAS: 136-52-7                         | ≥0.3 -<br><1   | Repr. Cat. 2; R60<br><br>Xi; R38<br>R43                                              | Skin Irrit. 2, H315<br><br>Skin Sens. 1, H317<br>Repr. 1B, H360FD (Fertility and Unborn child)                                                          | [1] [2] |
| maleic anhydride                      | REACH #:<br>01-2119472428-31<br>EC: 203-571-6<br>CAS: 108-31-6<br>Index: 607-096-00-9  | ≥0.1 -<br><0.3 | N; R51/53<br>Xn; R22<br><br>C; R34<br>R42/43                                         | Aquatic Chronic 2, H411<br>Acute Tox. 4, H302<br><br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317               | [1] [2] |
| 1,4-dihydroxybenzene                  | REACH #:<br>1-2119524016-51-0<br>EC: 204-617-8<br>CAS: 123-31-9<br>Index: 604-005-00-4 | <0.1           | Carc. Cat. 3; R40<br><br>Muta. Cat. 3; R68<br>Xn; R22<br>Xi; R41<br>R43<br>N; R50/53 | Acute Tox. 4, H302<br><br>Eye Dam. 1, H318<br>Skin Sens. 1B, H317<br>Muta. 2, H341<br>Carc. 2, H351<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | [1] [2] |
|                                       |                                                                                        |                | <b>See Section 16 for the full text of the R-phrases declared above.</b>             | <b>See Section 16 for the full text of the H statements declared above.</b>                                                                             |         |

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

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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****Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

**SECTION 4: First aid measures****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** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

**5.2 Special hazards arising from the substance or mixture**

- Hazards from the substance or mixture** : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

**5.3 Advice for firefighters**

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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 the information in "For non-emergency personnel".

**6.2 Environmental precautions**

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and material for containment and cleaning up**

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## SECTION 6: Accidental release measures

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

**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).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### Seveso II Directive - Reporting thresholds (in tonnes)

#### Danger criteria

| Category                                                    | Notification and MAPP threshold | Safety report threshold |
|-------------------------------------------------------------|---------------------------------|-------------------------|
| P5c: Flammable liquids 2 and 3 not falling under P5a or P5b | 5000                            | 50000                   |
| C7b: Highly flammable (R11)                                 | 5000                            | 50000                   |

### 7.3 Specific end use(s)

**Recommendations** : Not available.

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

## SECTION 8: Exposure controls/personal protection

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

| Product/ingredient name               | Exposure limit values                                                                                                                                                                                                |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| styrene                               | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b><br>STEL: 250 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.<br>TWA: 430 mg/m <sup>3</sup> 8 hours.<br>STEL: 1080 mg/m <sup>3</sup> 15 minutes.                       |
| butanone                              | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b><br>STEL: 899 mg/m <sup>3</sup> 15 minutes.<br>STEL: 300 ppm 15 minutes.<br>TWA: 600 mg/m <sup>3</sup> 8 hours.<br>TWA: 200 ppm 8 hours. |
| Silica, amorphous, fumed, cryst.-free | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b><br>TWA: 6 mg/m <sup>3</sup> 8 hours. Form: inhalable dust<br>TWA: 2.4 mg/m <sup>3</sup> 8 hours. Form: respirable dust                                         |
| cobalt bis(2-ethylhexanoate)          | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Skin sensitiser.</b><br>TWA: 0.1 mg/m <sup>3</sup> , (as Co) 8 hours.                                                                                              |
| maleic anhydride                      | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Skin sensitiser.</b><br>STEL: 3 mg/m <sup>3</sup> 15 minutes.<br>TWA: 1 mg/m <sup>3</sup> 8 hours.                                                                 |
| 1,4-dihydroxybenzene                  | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b><br>TWA: 0.5 mg/m <sup>3</sup> 8 hours.                                                                                                                         |

**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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

| Product/ingredient name | Type     | Exposure              | Value                    | Population | Effects  |
|-------------------------|----------|-----------------------|--------------------------|------------|----------|
| styrene                 | DNEL     | Short term Inhalation | 289 mg/m <sup>3</sup>    | Workers    | Systemic |
|                         | DNEL     | Short term Inhalation | 306 mg/m <sup>3</sup>    | Workers    | Local    |
|                         | DNEL     | Long term Dermal      | 406 mg/kg bw/day         | Workers    | Systemic |
|                         | DNEL     | Long term Inhalation  | 85 mg/m <sup>3</sup>     | Workers    | Systemic |
|                         | DNEL     | Short term Inhalation | 174.25 mg/m <sup>3</sup> | Consumers  | Systemic |
|                         | DNEL     | Short term Inhalation | 182.75 mg/m <sup>3</sup> | Consumers  | Local    |
|                         | DNEL     | Long term Dermal      | 343 mg/kg bw/day         | Consumers  | Systemic |
|                         | DNEL     | Long term Inhalation  | 10.2 mg/m <sup>3</sup>   | Consumers  | Systemic |
|                         | DNEL     | Long term Oral        | 2.1 mg/kg bw/day         | Consumers  | Systemic |
|                         | butanone | DNEL                  | Long term Dermal         | 1161 mg/   | Workers  |

**SECTION 8: Exposure controls/personal protection**

|                  |                      |                       |                                    |                           |          |          |
|------------------|----------------------|-----------------------|------------------------------------|---------------------------|----------|----------|
| maleic anhydride | DNEL                 | Long term Inhalation  | kg bw/day<br>600 mg/m <sup>3</sup> | Workers                   | -        |          |
|                  | DNEL                 | Long term Dermal      | 412 mg/kg<br>bw/day                | Consumers                 | -        |          |
|                  | DNEL                 | Long term Inhalation  | 106 mg/m <sup>3</sup>              | Consumers                 | -        |          |
|                  | DNEL                 | Long term Oral        | 31 mg/kg<br>bw/day                 | Consumers                 | -        |          |
|                  | DNEL                 | Short term Dermal     | 0.04 mg/<br>kg bw/day              | Workers                   | Systemic |          |
|                  | DNEL                 | Short term Dermal     | 0.04 mg/<br>cm <sup>2</sup>        | Workers                   | Local    |          |
|                  | DNEL                 | Long term Dermal      | 0.04 mg/<br>kg bw/day              | Workers                   | Systemic |          |
|                  | DNEL                 | Long term Dermal      | 0.04 mg/<br>cm <sup>2</sup>        | Workers                   | Local    |          |
|                  | DNEL                 | Short term Inhalation | 0.8 mg/m <sup>3</sup>              | Workers                   | Local    |          |
|                  | DNEL                 | Short term Inhalation | 0.8 mg/m <sup>3</sup>              | Workers                   | Systemic |          |
|                  | DNEL                 | Long term Inhalation  | 0.4 mg/m <sup>3</sup>              | Workers                   | Systemic |          |
|                  | DNEL                 | Long term Inhalation  | 0.4 mg/m <sup>3</sup>              | Workers                   | Local    |          |
|                  | 1,4-dihydroxybenzene | DNEL                  | Long term Dermal                   | 128 mg/kg<br>bw/day       | Workers  | Systemic |
|                  |                      | DNEL                  | Long term Inhalation               | 7 mg/m <sup>3</sup>       | Workers  | Systemic |
| DNEL             |                      | Long term Inhalation  | 1 mg/m <sup>3</sup>                | Workers                   | Local    |          |
| DNEL             |                      | Long term Dermal      | 64 mg/kg<br>bw/day                 | Human via the environment | Systemic |          |
| DNEL             |                      | Long term Inhalation  | 1.74 mg/m <sup>3</sup>             | Human via the environment | Systemic |          |
| DNEL             |                      | Long term Inhalation  | 0.5 mg/m <sup>3</sup>              | Human via the environment | Local    |          |

**PNECs**

| Product/ingredient name | Compartment Detail     | Value            | Method Detail |
|-------------------------|------------------------|------------------|---------------|
| styrene                 | Fresh water            | 0.028 mg/l       | -             |
|                         | Marine water           | 0.0028 mg/l      | -             |
|                         | Fresh water sediment   | 0.614 mg/kg dwt  | -             |
|                         | Marine water sediment  | 0.0614 mg/kg dwt | -             |
|                         | Soil                   | 0.2 mg/kg dwt    | -             |
|                         | Sewage Treatment Plant | 5 mg/l           | -             |
|                         | butanone               | Fresh water      | 55.8 mg/l     |
| Marine water            |                        | 55.8 mg/l        | -             |
| Sewage Treatment Plant  |                        | 709 mg/l         | -             |
| Sediment                |                        | 284.7 mg/kg      | -             |
| maleic anhydride        | Soil                   | 22.5 mg/kg       | -             |
|                         | Fresh water            | 0.04281 mg/l     | -             |
|                         | Marine water           | 0.004281 mg/l    | -             |
|                         | Fresh water sediment   | 0.334 mg/kg dwt  | -             |
|                         | Marine water sediment  | 0.0334 mg/kg dwt | -             |
|                         | Soil                   | 0.0415 mg/kg dwt | -             |
|                         | Sewage Treatment Plant | 44.6 mg/l        | -             |
| 1,4-dihydroxybenzene    | Fresh water            | 0.114 µg/l       | -             |
|                         | Marine water           | 0.0114 µg/l      | -             |
|                         | Fresh water sediment   | 0.00098 mg/kg    | -             |
|                         | Marine water sediment  | 0.000097 mg/kg   | -             |
|                         | Soil                   | 0.000129 mg/kg   | -             |
|                         | Sewage Treatment Plant | 0.71 mg/l        | -             |



## SECTION 8: Exposure controls/personal protection

Plant

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### 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** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

**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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid.

**Colour** : Not available.

**Odour** : Solvent

**Odour threshold** : Not available.

**pH** : Not available.

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

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

**Flash point** : Closed cup: <-18°C

## SECTION 9: Physical and chemical properties

|                                                     |                                             |
|-----------------------------------------------------|---------------------------------------------|
| <b>Evaporation rate</b>                             | : Not available.                            |
| <b>Flammability (solid, gas)</b>                    | : Not available.                            |
| <b>Burning time</b>                                 | : Not applicable.                           |
| <b>Burning rate</b>                                 | : Not applicable.                           |
| <b>Upper/lower flammability or explosive limits</b> | : Not available.                            |
| <b>Vapour pressure</b>                              | : Not available.                            |
| <b>Vapour density</b>                               | : Not available.                            |
| <b>Relative density</b>                             | : 1.1 to 1.2                                |
| <b>Solubility(ies)</b>                              | : Not available.                            |
| <b>Solubility in water</b>                          | : Not available.                            |
| <b>Partition coefficient: n-octanol/ water</b>      | : Not available.                            |
| <b>Auto-ignition temperature</b>                    | : Not available.                            |
| <b>Decomposition temperature</b>                    | : Not available.                            |
| <b>Viscosity</b>                                    | : Kinematic (40°C): >0.4 cm <sup>2</sup> /s |
| <b>Explosive properties</b>                         | : Not available.                            |
| <b>Oxidising properties</b>                         | : Not available.                            |
| <b>VOC content (% by weight)</b>                    | : 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** : The product is stable.

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

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

**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

#### Acute toxicity

| Product/ingredient name      | Result                 | Species | Dose                    | Exposure |
|------------------------------|------------------------|---------|-------------------------|----------|
| styrene                      | LC50 Inhalation Gas.   | Rat     | 2770 ppm                | 4 hours  |
|                              | LC50 Inhalation Vapour | Rat     | 11800 mg/m <sup>3</sup> | 4 hours  |
|                              | LD50 Dermal            | Rat     | >2000 mg/kg             | -        |
| butanone                     | LD50 Oral              | Rat     | 2650 mg/kg              | -        |
|                              | LD50 Dermal            | Rabbit  | 6480 mg/kg              | -        |
| cobalt bis(2-ethylhexanoate) | LD50 Oral              | Rat     | 2737 mg/kg              | -        |
|                              | LD50 Dermal            | Rabbit  | >5 g/kg                 | -        |
| maleic anhydride             | LD50 Oral              | Rat     | >2000 mg/kg             | -        |
|                              | LD50 Dermal            | Rabbit  | 2620 mg/kg              | -        |
| 1,4-dihydroxybenzene         | LD50 Oral              | Rat     | 400 mg/kg               | -        |
|                              | LD50 Oral              | Rat     | >375 mg/kg              | -        |

**SECTION 11: Toxicological information****Conclusion/Summary** : Not available.**Acute toxicity estimates**

| Route                | ATE value  |
|----------------------|------------|
| Inhalation (gases)   | 4122.3 ppm |
| Inhalation (vapours) | 17.56 mg/l |

**Irritation/Corrosion**

| Product/ingredient name | Result                   | Species | Score | Exposure                | Observation |
|-------------------------|--------------------------|---------|-------|-------------------------|-------------|
| styrene                 | Eyes - Mild irritant     | Human   | -     | 50 parts per million    | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 milligrams | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 100 milligrams          | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 milligrams          | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 100 Percent             | -           |
| butanone                | Skin - Mild irritant     | Rabbit  | -     | 24 hours 14 milligrams  | -           |

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

| Product/ingredient name | Route of exposure | Species             | Result                         |
|-------------------------|-------------------|---------------------|--------------------------------|
| 1,4-dihydroxybenzene    | skin<br>skin      | Mouse<br>Guinea pig | Sensitising<br>Not sensitizing |

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

| Product/ingredient name | Test | Experiment                                       | Result   |
|-------------------------|------|--------------------------------------------------|----------|
| 1,4-dihydroxybenzene    | -    | Experiment: In vivo<br>Subject: Mammalian-Animal | Positive |
|                         | -    | Experiment: In vivo<br>Subject: Bacteria         | Negative |

**Conclusion/Summary** : Not available.**Carcinogenicity****Conclusion/Summary** : Not available.**Reproductive toxicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Specific target organ toxicity (single exposure)**

| Product/ingredient name | Category   | Route of exposure | Target organs    |
|-------------------------|------------|-------------------|------------------|
| butanone                | Category 3 | Not applicable.   | Narcotic effects |

**Specific target organ toxicity (repeated exposure)**

| Product/ingredient name | Category   | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| styrene                 | Category 1 | Not determined    | ears          |

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure** : Not available.

**SECTION 11: Toxicological information****Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Long term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Potential chronic health effects**

| Product/ingredient name | Result                        | Species | Dose        | Exposure |
|-------------------------|-------------------------------|---------|-------------|----------|
| styrene                 | Chronic NOAEL Dermal          | Rat     | 615 mg/kg   | -        |
|                         | Chronic NOAEL Inhalation Gas. | Rat     | 20 ppm      | 8 hours  |
| 1,4-dihydroxybenzene    | Sub-chronic NOAEL Oral        | Rat     | 20 mg/kg    | 90 days  |
|                         | Sub-chronic NOAEL Dermal      | Rat     | >73.9 mg/kg | 90 days  |

- Conclusion/Summary** : Not available.
- General** : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : May damage the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : May damage fertility.

- Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name                  | Result                              | Species                                                                  | Exposure |
|------------------------------------------|-------------------------------------|--------------------------------------------------------------------------|----------|
| styrene                                  | Acute EC50 1400 µg/l Fresh water    | Algae - Pseudokirchneriella subcapitata                                  | 72 hours |
|                                          | Acute EC50 33 mg/l Fresh water      | Algae - Pseudokirchneriella subcapitata                                  | 96 hours |
|                                          | Acute EC50 4700 µg/l Fresh water    | Daphnia - Daphnia magna                                                  | 48 hours |
|                                          | Acute LC50 13000 µg/l Fresh water   | Crustaceans - Hyalella azteca                                            | 48 hours |
|                                          | Acute LC50 4020 µg/l Fresh water    | Fish - Pimephales promelas                                               | 96 hours |
|                                          | Chronic NOEC 1.01 mg/l              | Daphnia                                                                  | 21 days  |
| butanone                                 | Acute EC50 500000 µg/l Marine water | Algae - Skeletonema costatum                                             | 96 hours |
|                                          | Acute LC50 520000 µg/l Fresh water  | Daphnia - Daphnia magna                                                  | 48 hours |
|                                          | Acute LC50 400 ppm Marine water     | Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| maleic anhydride<br>1,4-dihydroxybenzene | Acute LC50 230 ppm Fresh water      | Fish - Gambusia affinis - Adult                                          | 96 hours |
|                                          | Acute EC50 0.134 mg/l               | Daphnia                                                                  | 48 hours |
|                                          | Acute LC50 0.638 mg/l               | Fish                                                                     | 96 hours |
|                                          | Chronic EC50 0.33 mg/l              | Aquatic plants                                                           | 72 hours |
|                                          | Chronic NOEC 0.019 mg/l             | Aquatic plants                                                           | 72 hours |
|                                          | Chronic NOEC 0.0057 mg/l            | Daphnia                                                                  | 21 days  |

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

| Product/ingredient name | Test | Result                   | Dose | Inoculum |
|-------------------------|------|--------------------------|------|----------|
| 1,4-dihydroxybenzene    | -    | 70 % - Readily - 14 days | -    | -        |

**Conclusion/Summary** : Not available.

| Product/ingredient name      | Aquatic half-life | Photolysis | Biodegradability |
|------------------------------|-------------------|------------|------------------|
| styrene                      | -                 | -          | Readily          |
| butanone                     | -                 | -          | Readily          |
| cobalt bis(2-ethylhexanoate) | -                 | -          | Not readily      |
| 1,4-dihydroxybenzene         | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name      | LogP <sub>ow</sub> | BCF   | Potential |
|------------------------------|--------------------|-------|-----------|
| styrene                      | 0.35               | 13.49 | low       |
| butanone                     | 0.3                | -     | low       |
| cobalt bis(2-ethylhexanoate) | -                  | 15600 | high      |
| maleic anhydride             | -2.78              | -     | low       |
| 1,4-dihydroxybenzene         | 0.59               | 3.162 | low       |

### 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.

## 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).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.




**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

|                                        | ADR/RID                                                                                  | IMDG                                                                                     | IATA                                                                                       |
|----------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>14.1 UN number</b>                  | UN1866                                                                                   | UN1866                                                                                   | UN1866                                                                                     |
| <b>14.2 UN proper shipping name</b>    | RESIN SOLUTION                                                                           | RESIN SOLUTION                                                                           | RESIN SOLUTION                                                                             |
| <b>14.3 Transport hazard class(es)</b> | 3<br> | 3<br> | 3<br> |
| <b>14.4 Packing group</b>              | II                                                                                       | II                                                                                       | II                                                                                         |
| <b>14.5 Environmental hazards</b>      | No.                                                                                      | No.                                                                                      | No.                                                                                        |
| <b>Additional information</b>          | <b>Special provisions</b><br>640 (C)<br><b>Tunnel code</b><br>(D/E)                      | -                                                                                        | -                                                                                          |

**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.

**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 authorisation

##### Annex XIV

None of the components are listed.

**Annex XVII - Restrictions** : Restricted to professional users.  
**on the manufacture,  
 placing on the market  
 and use of certain  
 dangerous substances,  
 mixtures and articles**

##### Other EU regulations

| Product/ingredient name          | Carcinogenic effects | Mutagenic effects | Developmental effects             | Fertility effects              |
|----------------------------------|----------------------|-------------------|-----------------------------------|--------------------------------|
| styrene                          | -                    | -                 | Repr. 2, H361d<br>(Unborn child)  | -                              |
| cobalt bis<br>(2-ethylhexanoate) | -                    | -                 | Repr. 1B, H360D<br>(Unborn child) | Repr. 1B, H360F<br>(Fertility) |
| 1,4-dihydroxybenzene             | Carc. 2, H351        | Muta. 2, H341     | -                                 | -                              |

##### Seveso II Directive

This product is controlled under the Seveso II Directive.

##### Danger criteria

##### Category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b  
 C7b: Highly flammable (R11)

##### National regulations

| Product/ingredient name      | List name                                        | Name on list     | Classification | Notes |
|------------------------------|--------------------------------------------------|------------------|----------------|-------|
| cobalt bis(2-ethylhexanoate) | UK Occupational<br>Exposure Limits EH40<br>- WEL | cobalt compounds | Carc.          | -     |

##### International regulations

**Listed on inventory.** : **Australia inventory (AICS):** Not determined.  
**China inventory (IECSC):** Not determined.  
**Japan inventory:** Not determined.  
**Korea inventory:** Not determined.  
**Malaysia Inventory (EHS Register):** Not determined.  
**New Zealand Inventory of Chemicals (NZIoC):** Not determined.  
**Philippines inventory (PICCS):** Not determined.  
**Taiwan inventory (CSNN):** Not determined.

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

## SECTION 16: Other information

✔ 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]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

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

**SECTION 16: Other information**

| Classification                                                                                                                                            | Justification                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Repr. 1B, H360FD (Fertility and Unborn child)<br>STOT RE 1, H372 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

**Full text of abbreviated H statements**

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| : H225                       | Highly flammable liquid and vapour.                                        |
| H226                         | Flammable liquid and vapour.                                               |
| H302                         | Harmful if swallowed.                                                      |
| H314                         | Causes severe skin burns and eye damage.                                   |
| H315                         | Causes skin irritation.                                                    |
| H317                         | May cause an allergic skin reaction.                                       |
| H318                         | Causes serious eye damage.                                                 |
| H319                         | Causes serious eye irritation.                                             |
| H332                         | Harmful if inhaled.                                                        |
| (inhalation)                 |                                                                            |
| H334                         | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H336                         | May cause drowsiness or dizziness.                                         |
| H341                         | Suspected of causing genetic defects.                                      |
| H351                         | Suspected of causing cancer.                                               |
| H360FD                       | May damage fertility. May damage the unborn child.                         |
| (Fertility and Unborn child) |                                                                            |
| H361d                        | Suspected of damaging the unborn child.                                    |
| (Unborn child)               |                                                                            |
| H372                         | Causes damage to organs through prolonged or repeated exposure.            |
| H372                         | Causes damage to organs through prolonged or repeated exposure. (ears)     |
| (ears)                       |                                                                            |
| 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.                           |

**Full text of classifications [CLP/GHS]**

|                               |                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------|
| : Acute Tox. 4, H302          | ACUTE TOXICITY (oral) - Category 4                                               |
| Acute Tox. 4, H332            | ACUTE TOXICITY (inhalation) - Category 4                                         |
| Aquatic Acute 1, H400         | ACUTE AQUATIC HAZARD - Category 1                                                |
| Aquatic Chronic 1, H410       | LONG-TERM AQUATIC HAZARD - Category 1                                            |
| Aquatic Chronic 2, H411       | LONG-TERM AQUATIC HAZARD - Category 2                                            |
| Carc. 2, H351                 | CARCINOGENICITY - Category 2                                                     |
| Eye Dam. 1, H318              | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1                                  |
| Eye Irrit. 2, H319            | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2                                  |
| Flam. Liq. 2, H225            | FLAMMABLE LIQUIDS - Category 2                                                   |
| Flam. Liq. 3, H226            | FLAMMABLE LIQUIDS - Category 3                                                   |
| Muta. 2, H341                 | GERM CELL MUTAGENICITY - Category 2                                              |
| Repr. 1B, H360FD              | TOXIC TO REPRODUCTION (Fertility and Unborn child) - Category 1B                 |
| (Fertility and Unborn child)  |                                                                                  |
| Repr. 2, H361d (Unborn child) | TOXIC TO REPRODUCTION (Unborn child) - Category 2                                |
| Resp. Sens. 1, H334           | RESPIRATORY SENSITIZATION - Category 1                                           |
| Skin Corr. 1B, H314           | SKIN CORROSION/IRRITATION - Category 1B                                          |
| Skin Irrit. 2, H315           | SKIN CORROSION/IRRITATION - Category 2                                           |
| Skin Sens. 1, H317            | SKIN SENSITIZATION - Category 1                                                  |
| Skin Sens. 1B, H317           | SKIN SENSITIZATION - Category 1B                                                 |
| STOT RE 1, H372               | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1                  |
| STOT RE 1, H372 (ears)        | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (ears) - Category 1           |
| STOT SE 3, H336               | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |



**SECTION 16: Other information**

**Full text of abbreviated R phrases** : R11- Highly flammable.  
R10- Flammable.  
R40- Limited evidence of a carcinogenic effect.  
R68- Possible risk of irreversible effects.  
R60- May impair fertility.  
R63- Possible risk of harm to the unborn child.  
R20- Also harmful by inhalation.  
R22- Also harmful if swallowed.  
R48/20- Also harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R34- Causes burns.  
R41- Risk of serious damage to eyes.  
R36- Irritating to eyes.  
R38- Irritating to skin.  
R36/38- Irritating to eyes and skin.  
R43- May cause sensitisation by skin contact.  
R42/43- May cause sensitisation by inhalation and skin contact.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.  
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.

**Full text of classifications [DSD/DPD]** : F - Highly flammable  
Carc. Cat. 3 - Carcinogen category 3  
Muta. Cat. 3 - Mutagen category 3  
Repr. Cat. 2 - Toxic to reproduction category 2  
Repr. Cat. 3 - Toxic to reproduction category 3  
C - Corrosive  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

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