

SAFETY DATA SHEET

GC 12 PASA

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

1.1 Product identifier

Product name : GC 12 PASA
Product code : G9003400
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

Identified uses

Gelcoat

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

Scott Bader ME
Jebel Ali
Dubai
United Arab Emirates.
Tel: +971 481 50222

e-mail address of person responsible for this SDS : SDS@scottbader.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number : +44 1865 407333 (NCEC) 24h

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. 3, H226
Acute Tox. 4, H332
Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
Repr. 2, H361d
STOT SE 3, H335
STOT RE 1, H372 (hearing organs)
Aquatic Chronic 3, H412

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

See Section 16 for the full text of the 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

: H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H361d - Suspected of damaging the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure.
(hearing organs)
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapour. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store in a well-ventilated place. Keep container tightly closed.

Disposal

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

Hazardous ingredients

: styrene
cobalt bis(2-ethylhexanoate)
maleic anhydride

Supplemental label elements

: Not applicable.

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

: 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

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|----------------------------------|---|-----------|---|---|---------|
| styrene | REACH #: 01-2119457861-32 EC: 202-851-5 CAS: 100-42-5 Index: 601-026-00-0 | ≥30 - ≤40 | Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H335 STOT RE 1, H372 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Inhalation (gases)] = 2770 ppm | [1] |
| oxybenzone | EC: 205-031-5 CAS: 131-57-7 | ≤0.3 | Aquatic Acute 1, H400 Aquatic Chronic 2, H411 | M [Acute] = 1 | [1] |
| cobalt bis(2-ethylhexanoate) | REACH #: 01-2119524678-29 EC: 205-250-6 CAS: 136-52-7 | <0.1 | Eye Irrit. 2, H319 Skin Sens. 1A, H317 Repr. 1B, H360F Aquatic Acute 1, H400 Aquatic Chronic 3, H412 | M [Acute] = 1 | [1] |
| 1,2,4-trimethylbenzene | EC: 202-436-9 CAS: 95-63-6 Index: 601-043-00-3 | ≤0.1 | Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | ATE [Inhalation (vapours)] = 18 mg/l | [1] [2] |
| maleic anhydride | REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9 | ≤0.1 | Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 | ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001% | [1] |
| 1-methoxy-2-propanol | REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3 | ≤0.1 | Flam. Liq. 3, H226 STOT SE 3, H336 | - | [1] [2] |
| (2-methoxymethylethoxy) propanol | REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8 | ≤0.1 | Not classified. See Section 16 for the full text of the H statements declared above. | - | [2] |

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, vPvBs or Substances of equivalent concern, 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

- 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 with plenty of soap and water. 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. 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

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 4: First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
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

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, CO₂, 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** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion 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".

SECTION 6: Accidental release measures

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). Water polluting material. May be harmful to the environment if released in large quantities.

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.

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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. Avoid release to the environment. 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 oxidising 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. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

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SECTION 7: Handling and storage

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P5c | 5000 tonne | 50000 tonne |

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 |
|---------------------------------|---|
| 1,2,4-trimethylbenzene | EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values TWA: 20 ppm 8 hours. TWA: 100 mg/m ³ 8 hours. |
| 1-methoxy-2-propanol | EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 100 ppm 8 hours. TWA: 375 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 568 mg/m ³ 15 minutes. |
| (2-methoxymethylethoxy)propanol | EU OEL (Europe, 1/2022). [(2-Methoxymethylethoxy)-propanol] Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 50 ppm 8 hours. TWA: 308 mg/m ³ 8 hours. |

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : 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 ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 306 mg/m ³ | Workers | Local |
| | DNEL | Long term Dermal | 406 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 85 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 174.25 mg/m ³ | General population [Consumers] | Systemic |

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SECTION 8: Exposure controls/personal protection

| | | | | | | |
|------------------------|------------------------------|-----------------------|--------------------------|--------------------------------|----------|----------|
| oxybenzone | DNEL | Short term Inhalation | 182.75 mg/m ³ | General population [Consumers] | Local | |
| | DNEL | Long term Dermal | 343 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Inhalation | 10.2 mg/m ³ | General population [Consumers] | Systemic | |
| | DNEL | Long term Oral | 2.1 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Oral | 7.7 µg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Inhalation | 1 mg/m ³ | General population | Local | |
| | DNEL | Long term Inhalation | 1 mg/m ³ | General population | Systemic | |
| | DNEL | Short term Inhalation | 10 mg/m ³ | General population | Local | |
| | DNEL | Short term Inhalation | 10 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Inhalation | 85 mg/m ³ | Workers | Systemic | |
| | DNEL | Short term Inhalation | 100 mg/m ³ | Workers | Local | |
| | DNEL | Long term Inhalation | 100 mg/m ³ | Workers | Local | |
| | DNEL | Short term Inhalation | 100 mg/m ³ | Workers | Systemic | |
| | DNEL | Long term Dermal | 343 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 406 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Long term Oral | 2 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Inhalation | 6.8 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Dermal | 20 mg/kg bw/day | General population | Systemic | |
| | cobalt bis(2-ethylhexanoate) | DNEL | Long term Inhalation | 27.7 mg/m ³ | Workers | Systemic |
| | | DNEL | Long term Dermal | 39 mg/kg bw/day | Workers | Systemic |
| 1,2,4-trimethylbenzene | DNEL | Long term Inhalation | 37 µg/m ³ | General population | Local | |
| | DNEL | Long term Oral | 175 µg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Inhalation | 235.1 µg/m ³ | Workers | Local | |
| | DNEL | Long term Oral | 15 mg/kg bw/day | General population | Systemic | |
| | DNEL | Short term Inhalation | 29.4 mg/m ³ | General population | Local | |
| | DNEL | Long term Inhalation | 29.4 mg/m ³ | General population | Local | |
| | DNEL | Short term Inhalation | 29.4 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Inhalation | 29.4 mg/m ³ | General population | Systemic | |
| | DNEL | Short term Inhalation | 100 mg/m ³ | Workers | Local | |
| | DNEL | Long term Inhalation | 100 mg/m ³ | Workers | Local | |

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SECTION 8: Exposure controls/personal protection

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|---------------------------------|----------------------|--------------------------------|-----------------------------|-----------------------|-----------------------|----------|
| maleic anhydride | DNEL | Inhalation Short term | 100 mg/m ³ | Workers | Systemic | |
| | DNEL | Inhalation Long term | 100 mg/m ³ | Workers | Systemic | |
| | DNEL | Inhalation Long term Dermal | 9512 mg/ kg bw/day | General population | Systemic | |
| | DNEL | Inhalation Long term Dermal | 16171 mg/ kg bw/day | Workers | Systemic | |
| | DNEL | Dermal Short term | 0.04 mg/ kg bw/day | Workers | Systemic | |
| | DNEL | Dermal Short term | 0.04 mg/ cm ² | Workers | Local | |
| | DNEL | Dermal Long term | 0.04 mg/ kg bw/day | Workers | Systemic | |
| | DNEL | Dermal Long term | 0.04 mg/ cm ² | Workers | Local | |
| | DNEL | Inhalation Long term | 0.4 mg/m ³ | Workers | Systemic | |
| | DNEL | Inhalation Long term | 0.4 mg/m ³ | Workers | Local | |
| | DNEL | Inhalation Long term | 0.05 mg/m ³ | General population | Systemic | |
| | DNEL | Oral Long term | 0.06 mg/ kg bw/day | General population | Systemic | |
| | DNEL | Inhalation Long term | 0.08 mg/m ³ | General population | Local | |
| | DNEL | Inhalation Long term | 0.081 mg/ m ³ | Workers | Local | |
| | DNEL | Inhalation Long term | 0.081 mg/ m ³ | Workers | Systemic | |
| | DNEL | Oral Short term | 0.1 mg/kg bw/day | General population | Systemic | |
| | DNEL | Dermal Short term | 0.1 mg/kg bw/day | General population | Systemic | |
| | 1-methoxy-2-propanol | DNEL | Dermal Long term | 0.1 mg/kg bw/day | General population | Systemic |
| | | DNEL | Dermal Short term | 0.2 mg/kg bw/day | Workers | Systemic |
| DNEL | | Dermal Long term | 0.2 mg/kg bw/day | Workers | Systemic | |
| DNEL | | Inhalation Short term | 0.2 mg/m ³ | Workers | Local | |
| DNEL | | Inhalation Short term | 0.2 mg/m ³ | Workers | Systemic | |
| DNEL | | Oral Long term | 33 mg/kg bw/day | General population | Systemic | |
| DNEL | | Inhalation Long term | 43.9 mg/m ³ | General population | Systemic | |
| DNEL | | Dermal Long term | 78 mg/kg bw/day | General population | Systemic | |
| DNEL | | Dermal Long term | 183 mg/kg bw/day | Workers | Systemic | |
| DNEL | | Inhalation Long term | 369 mg/m ³ | Workers | Systemic | |
| (2-methoxymethylethoxy)propanol | DNEL | Inhalation Short term | 553.5 mg/ m ³ | Workers | Local | |
| | DNEL | Inhalation Short term | 553.5 mg/ m ³ | Workers | Systemic | |
| | DNEL | Oral Long term | 36 mg/kg bw/day | General population | Systemic | |
| | DNEL | Inhalation Long term | 37.2 mg/m ³ | General population | Systemic | |

SECTION 8: Exposure controls/personal protection

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|--|------|----------------------|-----------------------|--------------------|----------|
| | DNEL | Long term Dermal | 121 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 283 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 308 mg/m ³ | Workers | Systemic |

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 | - |
| maleic anhydride | 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 | - |

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. 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 : 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.

SECTION 8: Exposure controls/personal protection

- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Not available.
- Odour** : Solvent
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit** : Not available.
- Flash point** : Closed cup: 32°C (89.6°F)
- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Kinematic (40°C): >40 mm²/s
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Vapour pressure** : Not available.
- Relative density** : 1.1 to 1.2
- Vapour density** : Not available.
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

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.

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SECTION 10: Stability and reactivity

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:
oxidising 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 hazard classes as defined in Regulation (EC) No 1272/2008

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 ³ | 4 hours |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| oxybenzone | LD50 Oral | Rat | 2650 mg/kg | - |
| | LD50 Oral | Rat | 7400 mg/kg | - |
| cobalt bis(2-ethylhexanoate) | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| 1,2,4-trimethylbenzene | LC50 Inhalation Vapour | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| maleic anhydride | LD50 Dermal | Rabbit | 2620 mg/kg | - |
| | LD50 Oral | Rat | 400 mg/kg | - |
| 1-methoxy-2-propanol | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 6600 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| GC 12 PASA | N/A | N/A | 8673.9 | 36.9 | N/A |
| styrene | 2650 | N/A | 2770 | 11.8 | N/A |
| oxybenzone | 7400 | N/A | N/A | N/A | N/A |
| 1,2,4-trimethylbenzene | 5000 | N/A | N/A | 18 | N/A |
| maleic anhydride | 400 | 2620 | N/A | N/A | N/A |
| 1-methoxy-2-propanol | 6600 | 13000 | N/A | N/A | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| styrene | Eyes - Mild irritant | Human | - | 50 ppm | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| 1-methoxy-2-propanol | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

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SECTION 11: Toxicological information

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 |
|-------------------------|------------|-------------------|------------------------------|
| styrene | Category 3 | - | Respiratory tract irritation |
| 1,2,4-trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|--------------------|
| styrene | Category 1 | - | hearing organs |
| maleic anhydride | Category 1 | inhalation | respiratory system |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| styrene | ASPIRATION HAZARD - Category 1 |
| 1,2,4-trimethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

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:
respiratory tract irritation
coughing
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
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

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SECTION 11: Toxicological information

Delayed and immediate effects as well as 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 Chronic NOAEL Inhalation Gas. | Rat Rat | 615 mg/kg 20 ppm | - 8 hours |

Conclusion/Summary : Not available.

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging the unborn child.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|-------------------------------------|---|----------|
| styrene | Acute EC50 4.9 mg/l | Algae | 72 hours |
| | Acute EC50 78000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 4700 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 52 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| | Acute LC50 4020 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic NOEC 1.01 mg/l | Daphnia | 21 days |
| oxybenzone | Chronic EC10 3.69 µg/l Marine water | Algae - Isochrysis galbana - Exponential growth phase | 72 hours |
| 1,2,4-trimethylbenzene | Chronic NOEC 90 µg/l Fresh water | Fish - Oryzias latipes - Adult | 28 days |
| | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscrus - Adult | 48 hours |
| maleic anhydride | Acute LC50 7720 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 230 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

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SECTION 12: Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|------------------------------|-------------------|------------|------------------|
| styrene | - | - | Readily |
| oxybenzone | - | - | Not readily |
| cobalt bis(2-ethylhexanoate) | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|------------------------------|--------------------|-----------|-----------|
| styrene | 0.35 | 13.49 | low |
| oxybenzone | 3.79 | 39 to 160 | low |
| cobalt bis(2-ethylhexanoate) | - | 15600 | high |
| 1,2,4-trimethylbenzene | 3.63 | 243 | low |
| maleic anhydride | -2.78 | - | low |
| 1-methoxy-2-propanol | <1 | - | low |
| (2-methoxymethylethoxy) | 0.004 | - | low |
| propanol | | | |

Legal entity

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 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.

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SECTION 13: Disposal considerations

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 | ADN | IMDG | IATA |
|---------------------------------|--|--|---|--|
| 14.1 UN number or ID number | UN1866 | UN1866 | UN1866 | UN1866 |
| 14.2 UN proper shipping name | RESIN SOLUTION | RESIN SOLUTION | RESIN SOLUTION | Resin solution |
| 14.3 Transport hazard class(es) | 3  | 3  | 3  | 3  |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No. | Yes. | No. | No. |

Additional information

ADR/RID : **Hazard identification number** 30
Limited quantity 5 L
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

IMDG : **Emergency schedules** F-E, _S-E_
Special provisions 223, 955

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.
Special provisions A3

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 IMO instruments : Not available.

SECTION 15: Regulatory information

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

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

| Classification | Justification |
|----------------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Acute Tox. 4, H332 | Calculation method |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Repr. 2, H361d | Calculation method |
| STOT SE 3, H335 | Calculation method |
| STOT RE 1, H372 (hearing organs) | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| 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. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

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SECTION 16: Other information

| | |
|--------|---|
| H360F | May damage fertility. |
| H361d | Suspected of damaging the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH071 | Corrosive to the respiratory tract. |

Full text of classifications [CLP/GHS]

| | |
|-------------------|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Repr. 1B | REPRODUCTIVE TOXICITY - Category 1B |
| Repr. 2 | REPRODUCTIVE TOXICITY - Category 2 |
| Resp. Sens. 1 | RESPIRATORY SENSITISATION - Category 1 |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| Skin Sens. 1A | SKIN SENSITISATION - Category 1A |
| STOT RE 1 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

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