

SAFETY DATA SHEET



SYNOLITE 6060-P-1

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

1.1 Product identifier

Product name : SYNOLITE 6060-P-1
 Internal code : 008029WW17948
 Chemical formula : Not applicable.
 REACH Registration number : Not available.

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

Recommended use : Resins system used in the production of fibre reinforced plastics or non-reinforced filled products.

1.3 Details of the supplier of the safety data sheet

Supplier : DSM Composite Resins AG
 Stettenerstrasse 28
 CH-8207 Schaffhausen
 Switzerland
 Tel: +41 52 6441212
 www.dsm.com/drs

e-mail address of person responsible for this SDS : DSMRESINS.SDS@dsm.com (Communication in English only please)

1.4 Emergency telephone number

Emergency telephone number : Netherlands: +31 38 4569289

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
 STOT SE 3, H335
 STOT RE 1, H372i

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

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

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

Classification : 10
 Xn; R20, R48/20
 Xi; R36/37/38

Physical/chemical hazards : Flammable.

Human health hazards : Harmful by inhalation. Irritating to eyes, respiratory system and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Environmental hazards : Based on the available data of this product no hazardous properties are known.

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : 226 Flammable liquid and vapour.
 H332 Harmful if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H372i Causes damage to organs through prolonged or repeated exposure if inhaled.

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

Precautionary statements

- Prevention** : Wear protective gloves: >8 hours (breakthrough time): fluor rubber (Viton) (0.70 mm); <1 hours (breakthrough time): Chloroprene , Nitril rubber (0.2 mm). Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapour. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
- Response** : Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical 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 attention.
- Storage** : Keep cool.
- Disposal** : Not applicable.
- Hazardous ingredients** : styrene

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

| Product/ingredient name | Identifiers | % | Classification | |
|---------------------------------------------|------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | 67/548/EEC | Regulation (EC) No. 1272/2008 [CLP] |
| <input checked="" type="checkbox"/> styrene | REACH #: 01-2119457861-32 EC: 202-851-5 CAS: 100-42-5 Index: 601-026-00-0 | 35-50 | R10 Xn; R20, R48/20, R65 Xi; R36/37/38 | Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 1, H372i Asp. Tox. 1, H304 |
| cobalt bis(2-ethylhexanoate) | EC: 205-250-6 CAS: 136-52-7 | 0.1-0.25 | R43 N; R50/53 | Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 1,4-dihydroxybenzene | EC: 204-617-8 CAS: 123-31-9 Index: 604-005-00-4 | <0.1 | Carc. Cat. 3; R40 Muta. Cat. 3; R68 Xn; R22 Xi; R41 R43 N; R50 See Section 16 for the full text of the R-phrases declared above. | Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351 Aquatic Acute 1, H400 See Section 16 for the full text of the H statements declared above. |

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

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** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. 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. 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 following exposure or if feeling unwell. 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.

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. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Irritating to mouth, throat and stomach.

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
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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

Small fire

- Suitable** : Use dry chemical powder, CO₂ or alcohol-resistant foam. Cover with vermiculite or other non-combustible material.
- Not suitable** : Do not use water jet.

Large fire

- Suitable** : Alcohol-resistant foam.
- Not suitable** : 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. 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 combustion products** : In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, (dense) black smoke, aldehydes, organic acids.

5.3 Advice for firefighters

- Special precautions for fire-fighters** : Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- 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 spilled 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** : 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 spilled 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 materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled 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). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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** : Do not store above the following temperature: 20°C (68°F). 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.
Keep away from heat and direct sunlight.

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| styrene | EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 250 ppm 15 minute(s). TWA: 100 ppm 8 hour(s). TWA: 430 mg/m ³ 8 hour(s). STEL: 1080 mg/m ³ 15 minute(s). |
| cobalt bis(2-ethylhexanoate) | EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin sensitiser. TWA: 0.1 mg/m ³ , (as Co) 8 hour(s). |
| 1,4-dihydroxybenzene | EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA: 0.5 mg/m ³ 8 hour(s). |

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

Derived effect levels

| Product/ingredient name | Type | Exposure | Value | Population |
|-------------------------|------|-----------------------|--------------------------|------------|
| styrene | DNEL | Short term Inhalation | 289 mg/m ³ | Workers |
| | DNEL | Short term Inhalation | 306 mg/m ³ | Workers |
| | DNEL | Long term Inhalation | 85 mg/m ³ | Workers |
| | DNEL | Short term Inhalation | 174.25 mg/m ³ | Consumers |
| | DNEL | Short term Inhalation | 182.75 mg/m ³ | Consumers |
| | DNEL | Long term Inhalation | 10.2 mg/m ³ | Consumers |

Predicted effect concentrations

| Product/ingredient name | Type | Compartment Detail | Value | Method Detail |
|-------------------------|------|------------------------|------------------|--------------------|
| styrene | PNEC | Fresh water | 0.028 mg/l | Assessment Factors |
| | PNEC | Marine | 0.0028 mg/l | Assessment Factors |
| | PNEC | Fresh water sediment | 0.614 mg/kg dwt | - |
| | PNEC | Marine water sediment | 0.0614 mg/kg dwt | - |
| | PNEC | Sewage Treatment Plant | 5 mg/l | Assessment Factors |
| | PNEC | Soil | 0.2 mg/kg dwt | - |

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 glasses with side shields.

Hand protection : 8 hours (breakthrough time): fluor rubber (Viton) (0.70 mm)
<1 hours (breakthrough time): Chloroprene , Nitril rubber (0.2 mm)

Skin and body : Wear suitable protective clothing.

Respiratory protection : Wear filter mask, filtertype A.

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.

Remarks : Replace damaged gloves.

Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|----------------------------------------------|------------------------------------------------------|
| Physical state | : Liquid. [Hazy liquid.] |
| Colour | : Pink |
| Odour | : Characteristic. |
| Odour threshold | : Not available. |
| pH | : Not available. |
| Melting point | : <input checked="" type="checkbox"/> Not available. |
| Initial boiling point and boiling range | : <input checked="" type="checkbox"/> 45 °C |
| Softening range | : Not available. |
| Flash point | : 33 °C (estimate) |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : <input checked="" type="checkbox"/> Not available. |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Upper/lower flammability or explosive limits | : Not available. |
| Vapour pressure | : Not available. |
| Vapour density | : Not available. |
| Relative density | : 1.09 (Water = 1) |
| Density (g/cm ³) | : 1.09 g/cm ³ (25°C) |
| Bulk density | : Not available. |
| Solubility | : Insoluble in the following materials: cold water. |
| Solubility in water | : Not available. |
| Solubility at room temperature | : Not available. |
| Partition coefficient: n-octanol/water | : <input checked="" type="checkbox"/> Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : <input checked="" type="checkbox"/> Not available. |
| Viscosity | : Dynamic: 335 to 455 mPa·s (335 to 455 cP) |
| Explosive properties | : <input checked="" type="checkbox"/> Not available. |
| Oxidising properties | : <input checked="" type="checkbox"/> Not available. |

9.2 Other information

Remarks : Not available.

SECTION 10: Stability and reactivity

| | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 Reactivity | : <input checked="" type="checkbox"/> No specific test data related to reactivity available for this product or its ingredients. |
| 10.2 Chemical stability | : <input checked="" type="checkbox"/> The product is stable. |
| 10.3 Possibility of hazardous reactions | : <input checked="" type="checkbox"/> Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : <input checked="" type="checkbox"/> 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 | : <input checked="" type="checkbox"/> Reactive or incompatible with the following materials: oxidizing materials |
| 10.6 Hazardous decomposition products | : <input checked="" type="checkbox"/> No specific data. |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|------------------------|---------|---------------------|----------|
| Styrene | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| | LC50 Inhalation Vapour | Rat | 12 g/m ³ | 4 hours |
| 1,4-dihydroxybenzene | LD50 Dermal | Mammal | 5970 mg/kg | - |
| | LD50 Oral | Rat | 302 mg/kg | - |
| | LD50 Oral | Mouse | 245 mg/kg | - |
| | LD50 Oral | Rabbit | 200 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

| Route | ATE value |
|------------------------------|-------------|
| Inhalation (gases) | 11498.4 ppm |
| Inhalation (vapours) | 28.11 mg/l |
| Inhalation (dusts and mists) | 3.833 mg/l |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|------------------------|------------------------------|-------|----------|-------------|
| Styrene | Respiratory - Irritant | Mammal - species unspecified | - | - | - |

Conclusion/Summary

Skin : Not available.

Eyes : Not available.

Respiratory : Not available.

Sensitiser

Conclusion/Summary

Skin : Not available.

Respiratory : Not available.

Mutagenicity

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 |
|-------------------------|------------|-------------------|------------------------------|
| Styrene | Category 3 | Not determined | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| Styrene | Category 1 | Inhalation | Ears |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| Styrene | ASPIRATION HAZARD - Category 1 |

Potential acute health effects

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Ingestion : Irritating to mouth, throat and stomach.

Skin contact : Causes skin irritation.

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

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

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

General : Causes damage to organs through prolonged or repeated exposure if inhaled.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|------------------------------|-------|------|-----|-------|-----|------|
| styrene | A4 | 2B | - | - | - | - |
| Cobalt bis(2-ethylhexanoate) | - | 2B | - | - | - | - |
| 1,4-dihydroxybenzene | A3 | 3 | - | - | - | - |

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure | Effects |
|-------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------------|
| styrene 1,4-dihydroxybenzene | Acute EC50 4.9 mg/l | Algae | 72 hours | - |
| | Acute LC50 4.02 mg/l | Fish - Fathead minnow | 96 hours | - |
| | Chronic NOEC 1.01 mg/l | Daphnia - Daphnia magna | 21 days | - |
| | Acute EC50 290 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - 6 to 24 hours | 48 hours | Intoxication |
| | Acute EC50 130 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - LARVAE | 48 hours | Intoxication |
| | Acute LC50 638 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 4.6 to 6.4 cm - 1.2 to 3.8 g | 96 hours | Mortality |
| | Acute LC50 97 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 11.3 cm - 16.8 g | 96 hours | Mortality |
| Acute LC50 44 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 3.5 cm - 0.5 g | 96 hours | Mortality | |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

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

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| styrene | 2.95 | - | low |
| 1,4-dihydroxybenzene | 0.5 to 0.59 | 40 | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.





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. Vapor 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/ADNR | IMDG | IATA |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.1 UN 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) |  |  |  |  |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No. | Yes. | No. | No. |
| 14.6 Special precautions for user | Not available. | Not available. | Not available. | Not available. |
| Additional information | <p>Hazard identification number 30</p> <p>Limited quantity 5 L</p> <p>Special provisions 640E</p> <p>Tunnel code (D/E)</p> <p>Remarks This class 3 material can be considered non</p> | - | <p>Emergency schedules (EmS) F-E, _S-E_</p> | <p>Passenger and Cargo Aircraft Quantity limitation: 220 L Packaging instructions: 355</p> <p>Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 366</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 10 L Packaging instructions: Y344</p> |

| | | | |
|--------------------------------------|--|--|--|
| hazardous in packagings up to 450 L. | | | |
|--------------------------------------|--|--|--|

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

Substances of very high concern

None of the components are listed.

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

Not applicable.

Other EU regulations

| Product/ingredient name | Carcinogenic effects | Mutagenic effects | Developmental effects | Fertility effects |
|-------------------------|----------------------|-------------------|-----------------------|-------------------|
| 1,4-dihydroxybenzene | Carc. 2, H351 | Muta. 2, H341 | - | - |

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

15.2 Chemical Safety Assessment : Not applicable.

SECTION 16: Other information

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

| Classification | Justification |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 1, H372i | On basis of test data Calculation method Calculation method Calculation method Calculation method 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.
- 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.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H372i Causes damage to organs through prolonged or repeated exposure if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very 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 AQUATIC TOXICITY (ACUTE) - Category 1
- Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1
- Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1
- 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. 3, H226 FLAMMABLE LIQUIDS - Category 3
- Muta. 2, H341 GERM CELL MUTAGENICITY - Category 2
- Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
- Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

STOT RE 1, H372i SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [ears] - Category 1
 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3

Full text of abbreviated R phrases : R10- Flammable.
 R40- Limited evidence of a carcinogenic effect.
 R68- Possible risk of irreversible effects.
 R20- Harmful by inhalation.
 R22- Harmful if swallowed.
 R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R65- Harmful: may cause lung damage if swallowed.
 R41- Risk of serious damage to eyes.
 R36/37/38- Irritating to eyes, respiratory system and skin.
 R43- May cause sensitisation by skin contact.
 R50- Very toxic to aquatic organisms.
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : Arc. Cat. 3 - Carcinogen category 3
 Muta. Cat. 3 - Mutagen category 3
 Xn - Harmful
 Xi - Irritant
 N - Dangerous for the environment

Alterations compared to the previous version : Alterations compared to the previous version are marked with a little (blue) triangle.

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

Sources of key data : Literature data and/or investigation reports are available through the manufacturer.

Internal code : 008029WW17948

Training advice : Handling of this substance or preparation is restricted to skilled personnel only.

Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

History

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