# SAFETY DATA SHEET

**PQ PROTO RED 485C**

## Section 1. Identification

| | | |
|---|---|---|
| **GHS product identifier** | : | PQ PROTO RED 485C |
| **Chemical name** | : | Mixture |
| **CAS number** | : | Mixture |
| **Other means of identification** | : | CC01054612 |
| **Product type** | : | liquid |

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

| | | |
|---|---|---|
| **Product use** | : | Industrial applications. Plastics. |
| **Supplier's details** | : | **AVIENT CORPORATION**<br>ColorMatrix Group Inc.<br>680 North Rocky River Drive, Berea, Ohio, 44017-1628, USA<br><br>+1 216 622 0100 |
| **Emergency telephone number (with hours of operation)** | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |

## Section 2. Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. After handling, always wash hands thoroughly with soap and water.

| | | |
|---|---|---|
| **OSHA/HCS status** | : | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| **Classification of the substance or mixture** | : | SKIN SENSITIZATION - Category 1 |

**GHS label elements**

**Hazard pictograms** :

**Signal word** : Warning
**Hazard statements** : May cause an allergic skin reaction.

**Precautionary statements**

: Not applicable.
**Prevention** : Wear protective gloves. Avoid breathing vapor.
**Response** : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water.
**Storage** : Not applicable.
**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : None known.
**Hazards not otherwise classified** : None known.
Not available.

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture
**Chemical name** : Mixture
**Other means of identification** : CC01054612

**CAS number/other identifiers**

| Ingredient name | % | CAS number |
|---|---|---|
| Titanium dioxide | >= 10 - <= 25 | 13463-67-7 |
| 14H-Anthra[2,1,9-mna]thioxanthen-14-one | >= 1 - <= 3 | 16294-75-0 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**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

**Description of necessary 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 if irritation occurs. |
| **Inhalation** | : | Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| **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. 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 if adverse health effects persist or are severe. 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. |

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

| | | |
|---|---|---|
| **Eye contact** | : | No known significant effects or critical hazards. |
| **Inhalation** | : | No known significant effects or critical hazards. |
| **Skin contact** | : | May cause an allergic skin reaction. |
| **Ingestion** | : | No known significant effects or critical hazards. |

**Over-exposure signs/symptoms**

| | | |
|---|---|---|
| **Eye contact** | : | No specific data. |
| **Inhalation** | : | No specific data. |
| **Skin contact** | : | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Ingestion** | : | No specific data. |

**Indication of immediate medical attention and special treatment needed, if necessary**

| | | |
|---|---|---|
| **Notes to physician** | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Specific treatments** | : | No specific treatment. |
| **Protection of first-aiders** | : | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

**Extinguishing media**

| | | |
|---|---|---|
| **Suitable extinguishing media** | : | In case of fire, use water spray (fog), foam, dry chemical or $CO_2$. |
| **Unsuitable extinguishing media** | : | None known. |
| **Specific hazards arising from the chemical** | : | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous thermal decomposition products** | : | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>sulfur oxides<br>halogenated compounds<br>metal oxide/oxides |
| **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. |
| **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. |

# Section 6. Accidental release measures

**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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized 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". |
| **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). |

**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. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | : | Stop leak if without risk. Move containers from spill area. Approach 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

# Section 7. Handling and storage

**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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or |

mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

| Ingredient name | Exposure limits |
|---|---|
| Titanium dioxide | **OSHA PEL 1989 (1989-03-01)**<br>TWA 10 mg/m3 Form: Total dust<br>**OSHA PEL (1993-06-30)**<br>TWA 15 mg/m3 Form: Total dust<br>**ACGIH TLV (1996-05-18)**<br>TWA 10 mg/m3 |
| 14H-Anthra[2,1,9-mna]thioxanthen-14-one | None. |

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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.

**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: safety glasses with side-shields. |

**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. |
| **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. |

# Section 9. Physical and chemical properties

**Appearance**

| | | |
|---|---|---|
| **Physical state** | : | liquid [liquid] |
| **Color** | : | RED |
| **Odor** | : | Faint odor. |
| **Odor threshold** | : | Not available. |

| | | |
|---|---|---|
| **pH** | : | Not available. |
| **Melting point** | : | Not available. |
| **Boiling point** | : | Not available. |
| **Flash point** | : | Not available. |
| **Burning time** | : | Not available. |
| **Burning rate** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Lower and upper explosive (flammable) limits** | : | **Lower:** Not available.<br>**Upper:** Not available. |
| **Vapor pressure** | : | Not available. |
| **Vapor density** | : | Not available. |
| **Relative density** | : | Not available. |
| **Solubility** | : | Not available. |
| **Solubility in water** | : | insoluble in water. |
| **Partition coefficient: n-octanol/water** | : | Not available. |
| **Auto-ignition temperature** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **SADT** | : | Not available. |
| **Viscosity** | : | **Dynamic:** Not available.<br>**Kinematic:** Not available. |

**Aerosol product**

| | | |
|---|---|---|
| **Heat of combustion** | : | Not available. |
| **Ignition distance** | : | Not available. |
| **Enclosed space ignition - Time equivalent** | : | Not available. |
| **Enclosed space ignition - Deflagration density** | : | Not available. |
| **Flame height** | : | Not available. |
| **Flame duration** | : | Not available. |

## Section 10. Stability and reactivity

| | | |
|---|---|---|
| **Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **Chemical stability** | : | Stable under recommended storage and handling conditions (see Section 7). |
| **Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **Conditions to avoid** | : | Keep away from extreme heat and oxidizing agents. |
| **Incompatible materials** | : | Keep away from strong acids. |

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

# Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Titanium oxide (TiO2) | | | | |
| | LC50 Inhalation Dusts and mists | Rat - Male | 6.82 Mg/l | 4 h |
| | LD50 Dermal | Rabbit | > 5,000 mg/kg | - |

**Conclusion/Summary** : Mixture.Not fully tested.

**Irritation/Corrosion**

**Conclusion/Summary**

**Skin** : Mixture.Not fully tested.
**Eyes** : Mixture.Not fully tested.
**Respiratory** : Mixture.Not fully tested.

**Sensitization**

**Conclusion/Summary**

**Skin** : Mixture.Not fully tested.
**Respiratory** : Mixture.Not fully tested.

**Mutagenicity**

**Conclusion/Summary** : Mixture.Not fully tested.

**Carcinogenicity**

**Conclusion/Summary** : Mixture.Not fully tested.

**Classification**

| Product/ingredient name | OSHA | IARC | NTP |
|---|---|---|---|
| Titanium oxide (TiO2) | - | 2B | - |

**Reproductive toxicity**

**Conclusion/Summary** : Mixture.Not fully tested.

**Teratogenicity**

**Conclusion/Summary** : Mixture.Not fully tested.

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

Not available.

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

Not available.

**Aspiration hazard**

Not available.

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

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.
**Inhalation** : No known significant effects or critical hazards.
**Skin contact** : 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** : No specific data.
**Inhalation** : No specific data.
**Skin contact** : Adverse symptoms may include the following: irritation, redness
**Ingestion** : No specific data.

**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**

**Conclusion/Summary** : Mixture.Not fully tested.

**General** : 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.
**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.

**Numerical measures of toxicity**

**Acute toxicity estimates**

| Product/ingredient name | Oral | Dermal | Inhalation (gases) | Inhalation (vapors) | Inhalation (dusts and mists) |
|---|---|---|---|---|---|
| PQ PROTO RED 485C | N/A | N/A | N/A | N/A | 6.82 Mg/l |
| Titanium oxide (TiO2) | N/A | N/A | N/A | N/A | 6.82 Mg/l |

**Other information** : This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

# Section 12. Ecological information

**Toxicity**

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Titanium oxide (TiO2) | | | |
| | Acute LC50 > 1,000 Mg/l Marine water | Fish - Fundulus heteroclitus | 96 h |
| | Acute LC50 3 Mg/l Fresh water | Crustaceans - Ceriodaphnia dubia | 48 h |
| | Acute LC50 6.5 Mg/l Fresh water | Daphnia - Daphnia pulex | 48 h |

**Conclusion/Summary** : Not available.

**Persistence and degradability**

**Conclusion/Summary** : Not available.

**Bioaccumulative potential**

| Product/ingredient name | LogPow | BCF | Potential |
|---|---|---|---|
| 14H-Anthra[2,1,9-mna]thioxanthen-14-one | 3.6 | - | low |

**Mobility in soil**

**Soil/water partition coefficient (KOC)** : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**United States - RCRA Acute hazardous waste "P" List:** Not listed

**United States - RCRA Toxic hazardous waste "U" List:** Not listed

## Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water : Not regulated for transportation.

International Air ICAO/IATA : Not classified as dangerous goods under transport regulations.

| | | |
|---|---|---|
| International Water IMO/IMDG | : | Not classified as dangerous goods under transport regulations. |

## Section 15. Regulatory information

**U.S. Federal regulations** :

**United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.
**United States - TSCA 4(a) - Final Test Rules:** Not listed
**United States - TSCA 4(a) - ITC Priority list:** Not listed
**United States - TSCA 4(a) - Proposed test rules:** Not listed
**United States - TSCA 4(f) - Priority risk review:** Not listed
**United States - TSCA 5(a)2 - Final significant new use rules:** Not listed
**United States - TSCA 5(a)2 - Proposed significant new use rules:** Not listed
**United States - TSCA 5(e) - Substances consent order:** Not listed
**United States - TSCA 6 - Final risk management:** Not listed
**United States - TSCA 6 - Proposed risk management:** Not listed
**United States - TSCA 8(a) - Chemical risk rules:** Not listed
**United States - TSCA 8(a) - Dioxin/Furane precusor:** Not listed
**United States - TSCA 8(a) - Chemical Data Reporting (CDR):** Not determined
**United States - TSCA 8(a) - Preliminary assessment report (PAIR):** Not listed
**United States - TSCA 8(c) - Significant adverse reaction (SAR):** Not listed
**United States - TSCA 8(d) - Health and safety studies:** Not listed
**United States - EPA Clean water act (CWA) section 307 - Priority pollutants:** Not listed
**United States - EPA Clean water act (CWA) section 311 - Hazardous substances:** Not listed
**United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances:** Not listed
**United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances:** Not listed
**United States - Department of commerce - Precursor chemical:** Not listed

| | | |
|---|---|---|
| **Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** | : | Not listed |
| **Clean Air Act Section 602 Class I Substances** | : | Not listed |
| **Clean Air Act Section 602 Class II Substances** | : | Not listed |

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

not applicable

**SARA 311/312**

**Classification** : SKIN SENSITIZATION - Category 1

**Composition/information on ingredients**

| Name | % | Classification |
|---|---|---|
| Titanium oxide (TiO2) | >= 10 - <= 25 | CARCINOGENICITY - Category 2 |
| 14H-Anthra[2,1,9-mna]thioxanthen-14-one | >= 1 - <= 3 | SKIN SENSITIZATION - Category 1 |

Not applicable.

**State regulations**

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed:
Titanium dioxide

**Pennsylvania** : The following components are listed:
Titanium dioxide

**California Prop. 65**

**WARNING:** This product can expose you to Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| Ingredient name | No significant risk level | Maximum acceptable dosage level |
|---|---|---|
| Titanium dioxide | - | - |

**United States inventory (TSCA 8b)** : All components are active or exempted.

**Canada inventory** : All components are listed or exempted.

**International regulations**

**Inventory list**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | All components are listed or exempted. |
| **China** | : | All components are listed or exempted. |
| **Europe inventory** | : | All components are listed or exempted. |
| **Japan** | : | Not determined. |
| **New Zealand** | : | All components are listed or exempted. |
| **Philippines** | : | All components are listed or exempted. |
| **Republic of Korea** | : | All components are listed or exempted. |
| **Taiwan** | : | All components are listed or exempted. |
| **Turkey** | : | Not determined. |
| **United States** | : | All components are active or exempted. |

# Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

| | | |
|---|---|---|
| **Health** | / | 2 |
| **Flammability** | | 0 |
| **Physical hazards** | | 0 |
| | | |

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.**

**The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.**

**History**

| | | |
|---|---|---|
| **Date of printing** | : | 01/24/2023 |
| **Date of issue/Date of revision** | : | 01/19/2023 |
| **Date of previous issue** | : | 01/17/2022 |
| **Version** | : | 1.3 |
| **Key to abbreviations** | : | ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From |

Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

**References** : Not available.

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.**