

## OPQ RED

Version Number 1.2 Revision Date 02/28/2019 Page 1 of 15 Print Date 03/02/2019

# SAFETY DATA SHEET

## **OPQ RED**

## **Section 1. Identification**

GHS product identifier : OPQ RED
Chemical name : Mixture
CAS number : Mixture
Other means of identification
Product type : liquid

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

**Product use** : Industrial applications. Plastics.

Supplier's details : POLYONE CORPORATION

ColorMatrix Group Inc.

680 North Rocky River Drive, Berea, Ohio, 44017-1628, USA

+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 : While this material is not considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and

other users of this product.

Classification of the substance or

mixture

Not classified.

#### **GHS label elements**



## **OPQ RED**

 Version Number 1.2
 Page 2 of 15

 Revision Date 02/28/2019
 Print Date 03/02/2019

Signal word : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

### **Precautionary statements**

General : Not applicable.
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Supplemental label elements : None known.
Hazards not otherwise classified : None known.

# Section 3. Composition/information on ingredients

Substance/mixture: MixtureChemical name: MixtureOther means of identification: CC01054294

#### **CAS** number/other identifiers

Ingredient name	<b>%</b>	CAS number
Titanium dioxide	10 - 25	13463-67-7
Silica, amorphous	1 - 3	7631-86-9

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**



## **OPQ RED**

Version Number 1.2 Page 3 of 15 Revision Date 02/28/2019 Print Date 03/02/2019

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the

upper and lower eyelids. Check for and remove any contact lenses.

Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. Get medical attention if symptoms occur. 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**: Flush contaminated skin with plenty of water. Remove contaminated

clothing and shoes. Get medical attention if symptoms occur.

**Ingestion** : Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by

medical personnel. Get medical attention if symptoms occur.

#### 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: No known significant effects or critical hazards.Ingestion: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.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.

#### See toxicological information (Section 11)



## OPQ RED

Version Number 1.2 Revision Date 02/28/2019 Page 4 of 15 Print Date 03/02/2019

## Section 5. Firefighting measures

#### **Extinguishing media**

Suitable extinguishing media Unsuitable extinguishing media

In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.

None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: In a fire or if heated, a pressure increase will occur and the container

may burst.

Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

halogenated compounds 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 selfcontained 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. 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-



## **OPQ RED**

Version Number 1.2 Revision Date 02/28/2019 Page 5 of 15 Print Date 03/02/2019

Large spill

insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Stop leak if without risk. Move containers from spill area. 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. 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 Advice on general occupational hygiene Put on appropriate personal protective equipment (see Section 8).

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. 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
Silica, amorphous	NIOSH REL (1994-06-01) TWA 6 mg/m3



## OPQ RED

Version Number 1.2 Revision Date 02/28/2019

Page 6 of 15 Print Date 03/02/2019

Titanium dioxide	OSHA PEL 1989 (1989-03-01) TWA 10 mg/m3 Form: Total dust
	OSHA PEL (1993-06-30)
	TWA 15 mg/m3 Form: Total dust
	ACGIH TLV (1996-05-18)
	TWA 10 mg/m3

**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. 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.

**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.



## OPQ RED

 Version Number 1.2
 Page 7 of 15

 Revision Date 02/28/2019
 Print Date 03/02/2019

## Section 9. Physical and chemical properties

#### **Appearance**

Physical state : liquid [liquid]

Color **RED** Odor Faint odor. **Odor threshold** Not available. Not available. Hq **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 : Lower: Not available. (flammable) limits : 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-** Not available.

octanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.

Viscosity : Dynamic: Not available.

Kinematic: 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.



**OPQ RED** 

Version Number 1.2 Page 8 of 15
Revision Date 02/28/2019 Print Date 03/02/2019

Hazardous decomposition products

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

# Section 11. Toxicological 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.

#### **Information on toxicological effects**

#### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure			
Remarks - Oral:	No applicable toxic	No applicable toxicity data					
Remarks - Inhalation:	No applicable toxic	No applicable toxicity data					
Remarks - Dermal:	No applicable toxicity data						
Titanium dioxide							
Remarks - Oral:	No applicable toxicity data						
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h			
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-			

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Silica, amorphous	Eyes - Mild irritant	Rabbit		24 hrs	-
Titanium dioxide	Skin - Mild irritant	Human		72 hrs	-

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.



## **OPQ RED**

 Version Number 1.2
 Page 9 of 15

 Revision Date 02/28/2019
 Print Date 03/02/2019

#### **Carcinogenicity**

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

Classification

Product/ing	redient	OSHA	IARC	NTP
name				
Silica, amorp	hous		3	
Titanium dio	xide		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 likely routes of

Not available.

exposure

#### **Potential acute health effects**

Eye contact: No known significant effects or critical hazards.Inhalation: No known significant effects or critical hazards.Skin contact: No known significant effects or critical hazards.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: No specific data.Ingestion: No specific data.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure



## **OPQ RED**

Version Number 1.2 Revision Date 02/28/2019 Page 10 of 15 Print Date 03/02/2019

### **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: No known significant effects or critical hazards.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**

Not available.

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
Silica, amorphous			
Remarks - Acute - Fish:	No applicable toxicity data		
Remarks - Acute - Aquatic	No applicable toxicity data		
invertebrates.:			
Remarks - Acute - Aquatic	No applicable toxicity data		
plants:			
Remarks - Chronic - Fish:	No applicable toxicity data		
Remarks - Chronic -	No applicable toxicity data		
Aquatic invertebrates.:	-		
Titanium dioxide			



**OPQ RED** 

Version Number 1.2 Revision Date 02/28/2019

Page 11 of 15 Print Date 03/02/2019

Remarks - Acute - Fish:   Acute   Acute LC50 3 Mg/l Fresh water   Aquatic invertebrates.   48 h		Acute LC50 > 1,000 Mg/l Marine	Fish - Fish	96 h
Acute LC50 3 Mg/l Fresh water Aquatic invertebrates.  Remarks - Acute - Aquatic invertebrates.:  Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates.  Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates.  Daphnia  Acute  Remarks - Acute - Aquatic invertebrates.  Acute  No applicable toxicity data  Remarks - Chronic - Fish:  No applicable toxicity data		water		
Remarks - Acute - Aquatic invertebrates.:  Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates. Daphnia  Remarks - Acute - Aquatic invertebrates. Daphnia  Acute  Remarks - Acute - Aquatic invertebrates. Daphnia  Acute  Remarks - Acute - Aquatic invertebrates. No applicable toxicity data  No applicable toxicity data	Remarks - Acute - Fish:	Acute		
Remarks - Acute - Aquatic invertebrates.:  Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates. Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic plants:  No applicable toxicity data  No applicable toxicity data		Acute LC50 3 Mg/l Fresh water	Aquatic invertebrates.	48 h
invertebrates.:  Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates. Daphnia  Remarks - Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic invertebrates.:  No applicable toxicity data  Remarks - Chronic - Fish:  No applicable toxicity data			Crustaceans	
Acute LC50 6.5 Mg/l Fresh water Aquatic invertebrates.  Remarks - Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic plants:  Remarks - Chronic - Fish:  No applicable toxicity data	Remarks - Acute - Aquatic	Acute		
Remarks - Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic plants:  Remarks - Chronic - Fish:  No applicable toxicity data	invertebrates.:			
Remarks - Acute - Aquatic invertebrates.:  Remarks - Acute - Aquatic plants:  Remarks - Chronic - Fish:  No applicable toxicity data		Acute LC50 6.5 Mg/l Fresh water	Aquatic invertebrates.	48 h
invertebrates.:  Remarks - Acute - Aquatic plants:  Remarks - Chronic - Fish:  No applicable toxicity data			Daphnia	
Remarks - Acute - Aquatic plants:  Remarks - Chronic - Fish: No applicable toxicity data  No applicable toxicity data	Remarks - Acute - Aquatic	Acute		
plants:  Remarks - Chronic - Fish: No applicable toxicity data	invertebrates.:			
Remarks - Chronic - Fish: No applicable toxicity data	Remarks - Acute - Aquatic	No applicable toxicity data		
	plants:			
Remarks - Chronic - No applicable toxicity data	Remarks - Chronic - Fish:	No applicable toxicity data		
Actual Ks - Cit office 140 applicable toxicity data	Remarks - Chronic -	No applicable toxicity data		_
Aquatic invertebrates.:	Aquatic invertebrates.:			

Not available. **Conclusion/Summary** 

Persistence and degradability

**Conclusion/Summary** Not available.

## **Bioaccumulative potential**

Not available.

## Mobility in soil

(KOC)

Soil/water partition coefficient

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



## OPQ RED

Version Number 1.2 Revision Date 02/28/2019 Page 12 of 15 Print Date 03/02/2019

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. 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

: Not classified as dangerous goods under transport regulations.

International Water

IMO/IMDG

ICAO/IATA

: 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



**OPQ RED** 

Version Number 1.2 Revision Date 02/28/2019

Page 13 of 15 Print Date 03/02/2019

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)** 

Clean Air Act Section 602 Class I

**Substances** 

Clean Air Act Section 602 Class II

**Substances** 

**DEA List I Chemicals (Precursor** 

Chemicals)

**DEA List II Chemicals (Essential** 

Chemicals)

Not listed

Not listed

Not listed

Not listed

Not listed

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

not applicable

**SARA 311/312** 

Classification Not applicable.

#### Composition/information on ingredients

No products were found.

110 products were round.		
Name	%	Classification
Silica, amorphous	>= 1 - <= 3	EYE IRRITATION - Category 2B
Titanium dioxide	>= 10 - <= 25	CARCINOGENICITY - Category 2

#### **SARA 313**

Not applicable.

### **State regulations**



## **OPQ RED**

Version Number 1.2 Page 14 of 15
Revision Date 02/28/2019 Print Date 03/02/2019

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

Silica, amorphous

## 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	No.	No.

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

## Section 16. Other information

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

Health	/	0
Flammability		0
	-	1/15



## **OPQ RED**

Version Number 1.2 Revision Date 02/28/2019 Page 15 of 15 Print Date 03/02/2019

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: 03/02/2019Date of issue/Date of revision: 02/28/2019Date of previous issue: 04/19/2016

Version : 1.2

**Key to abbreviations** : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of

Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

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.