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Version Number 1.0 Revision Date 04/15/2014 Page 1 of 16 Print Date 04/18/2014

## SAFETY DATA SHEET

### TAN 1

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	:	TAN 1 Mixture Mixture CC10197443 solid
Relevant identified uses of the substance or mixture and uses advised against		
Product use Supplier's details	:	Industrial applications. Plastics. <b>POLYONE CORPORATION</b> 33587 Walker Road, Avon Lake, OH 44012
Emergency telephone number (with hours of operation)	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).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. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors 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. 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 MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
Hazard statements	:	No known significant effects or critical hazards.

Version Number 1.0 Revision Date 04/15/2014 Page 2 of 16 Print Date 04/18/2014

#### **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	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10197443

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	10 - 30	13463-67-7
Xylenes (o-, m-, p- isomers)	1 - 5	1330-20-7

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. Get medical attention if irritation occurs.

PolyOne.

Version Number 1.0 Revision Date 04/15/2014		Page 3 of 16 Print Date 04/18/2014
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 a	and delayed
Potential acute health effects		
Eye contact Inhalation Skin contact	:	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 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	attentic	on 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.
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See toxicological information (Section 11)

## **Section 5. Fire-fighting measures**

<u>PolyOne</u>

Version Number 1.0	Page 4 of 16
Revision Date 04/15/2014	Print Date 04/18/2014

#### Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $CO_2$ . None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides 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 For emergency responders	:	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. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
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	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material
4/16		

vOne

Version Number 1.0 Revision Date 04/15/2014

### Page 5 of 16 Print Date 04/18/2014

and place in a designated, labeled waste container. 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
Titanium dioxide	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust NIOSH REL (1994-06-01)
	ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m3

PolyOne.

Version Number 1.0 Revision Date 04/15/2014

### Page 6 of 16 Print Date 04/18/2014

Xylenes (o-, m-, p- isomers)	NIOSH REL (2005-09-30)
	OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 435 mg/m3 100 ppm OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 435 mg/m3 100 ppm Short Term Exposure Limit 655 mg/m3 150 ppm ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 434 mg/m3 100 ppm TLV-STEL: Threshold Limit Value - Short Time Exposure Level 651 mg/m3 150 ppm
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 Eye/face protection	<ul> <li>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.</li> <li>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</li> </ul>
	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	<ul> <li>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.</li> </ul>
Other skin protection	: Appropriate footwear and any additional skin protection measures

vOne.

Version Number 1.0 Revision Date 04/15/2014	Page 7 of 16 Print Date 04/18/2014
	should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

#### **Appearance**

Physical state	:	solid
Color	:	TAN
Odor	:	Faint odor.
Odor threshold	:	Not available.
рН	:	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	:	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- octanol/water	:	Not available.
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

PolyOne

Version Number 1.0	Page 8 of 16
Revision Date 04/15/2014	Print Date 04/18/2014

		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	:	Under normal conditions of storage and use, hazardous decomposition
products		products should not be produced.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
Xylenes (o-, m-, p- isomers)				
	LD50 Oral	Rat	4,300 mg/kg	-
	LD50 Oral	Rat	4,300 mg/kg	-
	LC50 Inhalation	Rat	6670 ppm	4 h
	LC50 Inhalation	Rat	5000 ppm	4 h
	LC50 Inhalation	Rat	6700 ppm	4 h
<b>Conclusion/Summary</b>	: Mixtu	re.Not fully tested.	·	-

**Conclusion/Summary** 

#### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylenes (o-, m-, p- isomers)	Skin - Mild irritant	Rat		8 hrs	-
	Skin - Moderate irritant	Rabbit			-
	Skin - Moderate irritant	Rabbit		24 hrs	-
	Eyes - Mild irritant	Rabbit			-
	Eyes - Severe	Rabbit		24 hrs	-

<u>PolyOne</u>

Version Number 1.0 Revision Date 04/15/2014

### Page 9 of 16 Print Date 04/18/2014

	irritant				
	IIIItalit				
Conclusion/Summary		1 NT . C 11	4		
Skin		ixture.Not full			
Eyes		ixture.Not full			
Respiratory	: M	ixture.Not full	y tested.		
<b>Sensitization</b>					
Conclusion/Summary					
Skin	: M	ixture.Not full	y tested.		
Respiratory	: M	ixture.Not full	y tested.		
<u>Mutagenicity</u>					
Conclusion/Summary	: M	ixture.Not full	y tested.		
<b>Carcinogenicity</b>					
Conclusion/Summary <u>Classification</u>	: M	ixture.Not full	y tested.		
Product/ingredient name	OSHA	IA	RC	NTP	
Titanium dioxide		2B			
Xylenes (o-, m-, p- isomers)		3			
Reproductive toxicity       ·         Conclusion/Summary       :       Mixture.Not fully tested.					
<u>Teratogenicity</u>					
Conclusion/Summary	: M	ixture.Not full	y tested.		
<u>Specific target organ toxicity (single exposure)</u> Not available.					
<b>Specific target organ toxicit</b> Not available.	y (repeated exp	osure)			
Aspiration hazard Not available.					
Information on the likely roo exposure	utes of : N	ot available.			
Potential acute health effects	<u>5</u>				
		9/16			

PolyOne.

Version Number 1.0	Page 10 of 16
Revision Date 04/15/2014	Print Date 04/18/2014

Eye contact :	No known significant effects or critical hazards.
Inhalation :	Exposure to decomposition products may cause a health hazard.
	Serious effects may be delayed following exposure.
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 and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. 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.

<u>olyOne</u>

Version Number 1.0 Revision Date 04/15/2014

### Page 11 of 16 Print Date 04/18/2014

## Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result		Species	Exposure	
Xylenes (o-, m-, p- isomers)					
	Acute LC5 water	0 13,400 µg/l Fresh	Fish - Fathead minnow	96 h	
	Acute LC5 water	0 19,000 μg/l Fresh	Fish - Bluegill	96 h	
	Acute LC5 water	0 20,870 µg/l Fresh	Fish - Bluegill	96 h	
	Acute LC5 water	0 15,700 μg/l Fresh	Fish - Bluegill	96 h	
	Acute LC5 water	0 16,940 µg/l Fresh	Fish - Goldfish	96 h	
TAN 1					
Remarks - Acute - Aquatic invertebrates.:	Chemicals	are not readily available	as they are bound within the	e polymer matrix.	
Conclusion/Summary	: Chemicals are not readily available as they are bound within the polymer matrix.				
Persistence and degradability	<u>v</u>				
Conclusion/Summary	: Chemicals are not readily available as they are bound within the polymer matrix.				
Conclusion/Summary	:	: Chemicals are not readily available as they are bound within the polymer matrix.			

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	high
Xylenes (o-, m-, p- isomers)	3.23.153.12	8.10	high

#### **Mobility in soil**

Soil/water partition coefficient	:	Not available.
(KOC)		
Other adverse effects	:	No known significant effects or critical hazards.

## Section 13. Disposal considerations

Version Number 1.0	Page 12 of 16
Revision Date 04/15/2014	Print Date 04/18/2014

**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. 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: Listed

Ingredient	CAS #	Status	Reference number
Xylenes (o-, m-, p- isomers)	1330-20-7	Listed	

### **Section 14. Transport information**

U.S. DOT Classification	:	Not regulated for transportation.
ICAO/IATA	:	Consult mode specific transport rules
IMO/IMDG (maritime)	:	Consult mode specific transport rules
Special precautions for user	:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.'

### Section 15. Regulatory information

U.S. Federal regulations	<ul> <li>United States - TSCA 12(b) - Chemical export notification: None of the components are listed.</li> <li>United States - TSCA 4(a) - ITC Priority list: Not listed</li> <li>United States - TSCA 4(a) - Proposed test rules: Not listed</li> <li>United States - TSCA 5(a)2 - Final significant new use rules: Not listed</li> <li>United States - TSCA 5(a)2 - Proposed significant new use rules:</li> </ul>
	40/40

Version Number 1.0 Revision Date 04/15/2014

### Page 13 of 16 Print Date 04/18/2014

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 - TSCA 4(a) - Final Test Rules: Not listed United States - TSCA 4(f) - Priority risk review: Not listed United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Zinc ferrite brown spinel (C.I. Pigment Yellow 119) Ethvl benzene Nickel Chromium Arsenic United States - EPA Clean water act (CWA) section 311 -Hazardous substances: 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)	:	Listed
Hazardous Air Pollutants (HAPs)		
Clean Air Act Section 602 Class I	:	Not listed
Substances		
Clean Air Act Section 602 Class II	:	Not listed
Substances		
DEA List I Chemicals (Precursor	:	Not listed
Chemicals)		
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

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

)ne.

Version Number 1.0 Revision Date 04/15/2014 Page 14 of 16 Print Date 04/18/2014

Chemical Name	CAS-No.	RQ for component
Xylenes (o-, m-, p- isomers)	1330-20-7	100 lb(s)
		45.4 kg
		1,000 lb(s)
		454 kg

#### SARA 311/312

Classification

Not applicable.

:

#### **Composition/information on ingredients**

Name	%	Classification
Titanium dioxide	10 - 30	СН
Xylenes (o-, m-, p- isomers)	1 - 5	F, AH

#### SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Rutile, antimony chromium buff	68186-90-3	7 - 10
	Zinc ferrite brown spinel (C.I. Pigment Yellow 119)	68187-51-9	5 - 7
	Xylenes (o-, m-, p- isomers)	1330-20-7	3 - 5
Supplier notification	Rutile, antimony chromium buff	68186-90-3	7 - 10
	Zinc ferrite brown spinel (C.I. Pigment Yellow 119)	68187-51-9	5 - 7
	Xylenes (o-, m-, p- isomers)	1330-20-7	3 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations	
Massachusetts	: The following components are listed:
	Titanium dioxide
	Xylenes (o-, m-, p- isomers)
	Silica, amorphous
New York	: The following components are listed:
	Xylenes (o-, m-, p- isomers)
	14/16

<u>PolyOne</u>

Version Number 1.0	Page 15 of 16
Revision Date 04/15/2014	Print Date 04/18/2014

New Jersey	:	The following components are listed: Titanium dioxide Zinc ferrite brown spinel (C.I. Pigment Yellow 119) Xylenes (o-, m-, p- isomers)
Pennsylvania	:	The following components are listed: Titanium dioxide
		Zinc ferrite brown spinel (C.I. Pigment Yellow 119)
		Xylenes (o-, m-, p- isomers)
		Silica, amorphous

### California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	All components are listed or exempted.
International regulations		
International lists	:	<ul> <li>Australia inventory (AICS): All components are listed or exempted.</li> <li>Taiwan inventory (CSNN): Not determined.</li> <li>Malaysia Inventory (EHS Register): Not determined.</li> <li>EINECS: Please contact your supplier for information on the inventory status of this material.</li> <li>Japan inventory: Not determined.</li> <li>China inventory (IECSC): All components are listed or exempted.</li> <li>Korea inventory: All components are listed or exempted.</li> <li>New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.</li> <li>Philippines inventory (PICCS): All components are listed or exempted.</li> </ul>
Chemical Weapons Convention List Schedule I Chemicals Chemical Weapons Convention List Schedule II Chemicals Chemical Weapons Convention List Schedule III Chemicals	: : :	Not listed Not listed Not listed

## Section 16. Other information

#### **History**

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Version Number 1.0 Revision Date 04/15/2014

### Page 16 of 16 Print Date 04/18/2014

Date of printing Date of issue/Date of revision Date of previous issue Version	:	04/18/2014 04/15/2014 04/14/2014 1.0
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 = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = 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 abovenamed 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.