

Creation Date 21-Jan-2011 Revision Date 27-Apr-2016 Revision Number 8

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identification

Product Description: Potassium cyanide

Cat No. : 316450000; 316450250; 316455000

**Synonyms** Cyanide of potassium; Hydrocyanic acid, potassium salt; KCN.

 CAS-No
 151-50-8

 EC-No.
 205-792-3

 Molecular Formula
 C K N

Reach Registration Number 01-2119486407-29

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

Recommended Use Laboratory chemicals.

Sector of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC21 - Laboratory chemicals

Process categories PROC15 - Use as a laboratory reagent

Environmental release category ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

Uses advised against No Information available

#### 1.3. Details of the supplier of the safety data sheet

Company Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

#### Physical hazards

Substances/mixtures corrosive to metal Category 1

**Health hazards** 

Acute oral toxicity

Acute dermal toxicity

Acute Inhalation Toxicity - Dusts and Mists

Specific target organ toxicity - (single exposure)

Specific target organ toxicity - (repeated exposure)

Category 1

Category 1

Category 1

Category 1

#### **Environmental hazards**

Acute aquatic toxicity
Chronic aquatic toxicity
Category 1
Category 1

#### 2.2. Label elements



Signal Word

**Danger** 

#### **Hazard Statements**

H290 - May be corrosive to metals

H300 - Fatal if swallowed

H310 - Fatal in contact with skin

H330 - Fatal if inhaled

H370 - Causes damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

EUH032 - Contact with acids liberates very toxic gas

### **Precautionary Statements**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P273 - Avoid release to the environment

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

#### 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Potassium cyanide	151-50-8	EEC No. 205-792-3	>95	Acute Tox. 1 (H300) Acute Tox. 1 (H310) Acute Tox. 1 (H330) Acute Tox. 1 (H400) Aquatic Acute 1 (H440) Aquatic Chronic 1 (H410) STOT SE 1 (H370) STOT RE 1 (H372) Met. Corr. 1 (H290) EUH032

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Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES	
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4.1. Description of first aid measures

General Advice Immediately call a POISON CENTER or doctor/physician. Show this safety data sheet to

the doctor in attendance. Take off contaminated clothing and shoes immediately.

**Eye Contact**Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

**Ingestion** Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation Remove from exposure, lie down. Move to fresh air. Do not use mouth-to-mouth method if

victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate

medical attention is required. If not breathing, give artificial respiration.

Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

#### 4.2. Most important symptoms and effects, both acute and delayed

Breathing difficulties. Systemic Toxicity: Respiratory disorders: Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock: May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood): Exposure may result in death

#### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat as cyanide poisoning.

### **SECTION 5: FIREFIGHTING MEASURES**

#### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry powder.

### Extinguishing media which must not be used for safety reasons

Carbon dioxide (CO<sub>2</sub>). Do not use water or foam.

#### 5.2. Special hazards arising from the substance or mixture

Non-combustible. Do not allow run-off from fire fighting to enter drains or water courses.

#### **Hazardous Combustion Products**

Nitrogen oxides (NOx), Hydrogen cyanide (hydrocyanic acid), Potassium oxides.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch or walk through spilled material. If spilled, take

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caution, as material can cause surfaces to become very slippery.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

### 6.3. Methods and material for containment and cleaning up

Provide adequate ventilation. Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not expose spill to water.

Keep in suitable, closed containers for disposal: Prevent contact with water. Do NOT use water for clean-up: Use personal protective equipment

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

### **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Use only under a chemical fume hood. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep locked-up. Keep away from acids. Keep away from combustible material. Do not store in aluminum containers.

### 7.3. Specific end use(s)

Use in laboratories

### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1. Control parameters

#### **Exposure limits**

List source(s): **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

	Component	European Union	The United Kingdom	France	Belgium	Spain
Pot	assium cyanide		STEL: 15 mg/m <sup>3</sup> 15 min	TWA / VME: 5 mg/m <sup>3</sup> (8	Huid	STEL / VLA-EC: 5
	-		TWA: 5 mg/m <sup>3</sup> 8 hr	heures).		mg/m³ (15 minutos).
			Skin	Peau		Piel

Component	Italy	Germany	Portugal	The Netherlands	Finland
Potassium cyanide		TWA: 5.0 mg/m³ (8 Stunden). MAK TWA: 2 mg/m³ (8 Stunden). MAK Höhepunkt: 5.0 mg/m³ Höhepunkt: 2 mg/m³ Haut	Ceiling: 5 mg/m³ Pele		TWA: 1 mg/m <sup>3</sup> 8 tunteina STEL: 5 mg/m <sup>3</sup> 15 minuutteina Iho

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Component	Austria	Denmark	Switzerland	Poland	Norway
Potassium cyanide		Ceiling: 5 mg/m³ Hud	Haut/Peau STEL: 5 mg/m³ 15 Minuten TWA: 5 mg/m³ 8 Stunden	ceiling: 5 mg/m³	TWA: 5 mg/m <sup>3</sup> 8 timer Hud

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Potassium cyanide	STEL: 5.0 mg/m <sup>3</sup>				

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Potassium cyanide					STEL: 5 mg/m <sup>3</sup>
					Skin notation

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Potassium cyanide				LLV: 2 mg/m <sup>3</sup> 8 timmar.	
				total	
				Hud	
				CLV: 4 mg/m <sup>3</sup>	

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL) See table for values

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal		4.03 mg/kg/day		0.14 mg/kg/day
Inhalation		12.5 mg/m <sup>3</sup>		0.94 mg/m <sup>3</sup>

Predicted No Effect Concentration See values below. (PNEC)

Fresh water 0.001 mg/l
Fresh water sediment 0.004 mg/kg
Marine water 0.001 mg/l
Marine water sediment 0.004 mg/kg
Water Intermittent 0.005 mg/l
Microorganisms in sewage treatment

Soil (Agriculture) 0.007 mg/kg

### 8.2. Exposure controls

### **Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

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Glove materialBreakthrough timeGlove thicknessEU standardGlove commentsButyl rubber> 480 minutes0.35 mmEN 374 Level 3As tested under EN374-3 Determination of Resistance to Permeation by Chemicals

**Skin and body protection**Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection**When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

20 g/l aq.sol.(20°C)

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on basic physical and chemical properties

**Appearance** White

Physical State Powder Solid

Odor bitter almond

Odor Threshold No data available

pH 11-12

Melting Point/Range 634 °C / 1173.2 °F Softening Point No data available

Boiling Point/Range 1625 °C / 2957 °F

Flash Point No information available Method - No information available

Evaporation Rate Not applicable Solid

Flammability (solid,gas) No information available

**Explosion Limits** No data available

Vapor Pressure No data available

Vapor Density Not applicable Solid

Specific Gravity / Density No data available 1.52 @ 16°C

Bulk DensityNo data availableWater Solubility400 g/L (20°C)

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Autoignition Temperature Not applicable
Decomposition Temperature No data available

Viscosity Not applicable Solid

Explosive Properties No information available Oxidizing Properties No information available

#### 9.2. Other information

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Molecular FormulaC K NMolecular Weight65.12

### **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity

Yes Contact with acids liberates very toxic gas

10.2. Chemical stability

Moisture sensitive

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous Reactions

Hazardous polymerization does not occur.

Corrosive to metals.

10.4. Conditions to avoid

Excess heat. Burning produces obnoxious and toxic fumes. Incompatible products.

Exposure to light. Exposure to moist air or water. Exposure to air.

10.5. Incompatible materials

Acids. Strong oxidizing agents. Bases. Powdered metal salts. Aldehydes. Peroxides.

Metals.

#### 10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Hydrogen cyanide (hydrocyanic acid). Potassium oxides.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on toxicological effects

#### **Product Information**

(a) acute toxicity;

OralCategory 1DermalCategory 1InhalationCategory 1

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium cyanide	LD50 = 7.49 mg/kg (Rat) LD50 = 5 mg/kg (Rat)	LD50 = 22.3 mg/kg ( Rabbit )	LC50 = 0.16 mg/L (Rat) 1 h

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

**Respiratory**Skin
Based on available data, the classification criteria are not met
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Category 1

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(i) STOT-repeated exposure: Category 1

**Target Organs** Heart, Thyroid, Cardiovascular system, Central nervous system (CNS).

(j) aspiration hazard; Not applicable

Solid

Symptoms / effects,both acute and Systemic Toxicity: Respiratory disorders: Symptoms may include tightness in the chest,

delaved

flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock: May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood): Exposure may result in

death

### **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity **Ecotoxicity effects** 

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Potassium cyanide	LC50: = 0.0588  mg/L,	EC50: = 0.53 mg/L, 24h		
	96h flow-through	(Daphnia magna)		
	(Poecilia reticulata)			
	LC50: 0.31 - 0.37 mg/L,			
	96h static (Pimephales			
	promelas)			
	LC50: 0.45 - 0.57 mg/L,			
	96h flow-through			
	(Lepomis macrochirus)			
	LC50: = 0.45 mg/L, 96h			
	(Lepomis macrochirus)			
	LC50: 0.01 - 0.08 mg/L,			
	96h static (Lepomis			
	macrochirus)			
	LC50: 0.044 - 0.084			
	mg/L, 96h static			
	(Oncorhynchus mykiss)			
	LC50: 0.04 - 0.046			
	mg/L, 96h flow-through			
	(Oncorhynchus mykiss)			

12.2. Persistence and degradability

**Persistence** Soluble in water, Persistence is unlikely, based on information available.

Degradability Not relevant for inorganic substances.

Degradation in sewage Contains substances known to be hazardous to the environment or not degradable in waste

treatment plant water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

12.4. Mobility in soil The product is water soluble, and may spread in water systems Will likely be mobile in the

environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

assessment

12.6. Other adverse effects

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**Persistent Organic Pollutant** This product does not contain any known or suspected substance **Ozone Depletion Potential** This product does not contain any known or suspected substance

### **SECTION 13: DISPOSAL CONSIDERATIONS**

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13.1. Waste treatment methods

Waste from Residues / Unused

**Products** 

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in

accordance with local regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

**European Waste Catalogue (EWC)** 

According to the European Waste Catalogue, Waste Codes are not product specific, but

application specific.

Other Information

Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this

chemical enter the environment.

### **SECTION 14: TRANSPORT INFORMATION**

#### IMDG/IMO

**14.1. UN number** UN1680

14.2. UN proper shipping name POTASSIUM CYANIDE, SOLID

14.3. Transport hazard class(es) 6.1
Subsidiary Hazard Class P
14.4. Packing group I

ADR

**14.1. UN number** UN1680

14.2. UN proper shipping name POTASSIUM CYANIDE, SOLID

**14.3. Transport hazard class(es)** 6.1 **14.4. Packing group** I

IATA

**14.1. UN number** UN1680

14.2. UN proper shipping name POTASSIUM CYANIDE, SOLID

14.3. Transport hazard class(es) 6.1 14.4. Packing group

**14.5. Environmental hazards** Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Not applicable, packaged goods

Annex II of MARPOL73/78 and the

IBC Code

### **SECTION 15: REGULATORY INFORMATION**

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

International Inventories X = listed

	intorriational involves		, t — 110t00									
	Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
ı	Potassium cyanide	205-792-3	-		Х	Χ	-	Χ	Χ	Χ	Х	Х

### **National Regulations**

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class				
Potassium cyanide	WGK 3					

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Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

### **SECTION 16: OTHER INFORMATION**

#### Full Text of H-/EUH-Statements Referred to Under Section 3

H290 - May be corrosive to metals

H300 - Fatal if swallowed

H310 - Fatal in contact with skin

H330 - Fatal if inhaled

H370 - Causes damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

EUH032 - Contact with acids liberates very toxic gas

#### Legend

**CAS** - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b)

Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

IARC - International Agency for Research on Cancer

NZIoC - New Zealand Inventory of Chemicals

PNEC - Predicted No Effect Concentration

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

EC50 - Effective Concentration 50%

TWA - Time Weighted Average

LD50 - Lethal Dose 50%

WEL - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of

Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air

Transport Association

MARPOL - International Convention for the Prevention of Pollution from

ATE - Acute Toxicity Estimate

VOC - Volatile Organic Compounds

#### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

### **Training Advice**

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

Chemical incident response training.

**Creation Date** 21-Jan-2011 **Revision Date** 27-Apr-2016 **Revision Summary** Update to Format.

### This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

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# **End of Safety Data Sheet**