



SAFETY DATA SHEET

Creation Date 18-Oct-2010

Revision Date 29-Aug-2013

Revision Number 3

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

1.1. Product identifier

Product Description: Cobalt, powder
Cat No. : 453910000; 453910010; 453912500
Synonyms Color Index No. 77320.
CAS-No 7440-48-4
EC-No. 231-158-0
Molecular Formula Co

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

Recommended Use Laboratory chemicals
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company Acros Organics BVBA
Janssen Pharmaceuticaaan 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

Flammable solids Category 2

Health hazards

Acute oral toxicity Category 4
Acute Inhalation Toxicity - Dusts and Mists Category 1
Serious Eye Damage/Eye Irritation Category 2
Respiratory Sensitization Category 1
Skin Sensitization Category 1
Carcinogenicity Category 1B
Reproductive Toxicity Category 1B

Environmental hazards

Acute aquatic toxicity Category 1
Chronic aquatic toxicity Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

SECTION 2: HAZARDS IDENTIFICATION

Symbol(s)	F - Highly flammable T+ - Very toxic
R-phrases(s)	N - Dangerous for the environment R11 - Highly flammable R49 - May cause cancer by inhalation R60 - May impair fertility R22 - Also harmful if swallowed R26 - Also very toxic by inhalation R36 - Irritating to eyes R42/43 - May cause sensitization by inhalation and skin contact R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

2.2. Label elements

Signal Word

Danger

Hazard Statements

H228 - Flammable solid
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H302 - Harmful if swallowed
H330 - Fatal if inhaled
H319 - Causes serious eye irritation
H350i - May cause cancer by inhalation
H360F - May damage fertility
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/ physician
P281 - Use personal protective equipment as required
P201 - Obtain special instructions before use

2.3. Other hazards

No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

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Cobalt, powder

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Cobalt, powder	7440-48-4	EEC No. 231-158-0	>95	Flam. Sol. 2 (H228) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Acute Tox. 1 (H330) Eye Irrit. 2 (H319) Carc. 1B (H350i) Repr. 1B (H360F) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	F; R11 Carc.Cat. 2; R49 Repr.Cat. 2; R60 T; R26 Xn; R22-42/43 Xi; R36 N; R50-53

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
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	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Protection of First-aiders	Use personal protective equipment.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction... Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

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

Notes to Physician	Treat symptomatically.
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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Dust can form an explosive mixture in air. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products

Cobalt 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. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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. Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal.

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**

Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe vapors/dust. Do not ingest.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

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
Cobalt, powder

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 0.3 mg/m ³ 15 min TWA: 0.1 mg/m ³ 8 hr		TWA: 0.02 mg/m ³ 8 uren	TWA / VLA-ED: 0.02 mg/m ³ (8 horas)

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Cobalt, powder

Component	Italy	Germany	Portugal	The Netherlands	Finland
Cobalt, powder		Haut	TWA: 0.02 mg/m ³ 8 horas	TWA: 0.02 mg/m ³ 8 uren	TWA: 0.05 mg/m ³ 8 tunteina
Component	Austria	Denmark	Switzerland	Poland	Norway
Cobalt, powder	STEL: 2 mg/m ³ 15 Minuten STEL: 0.4 mg/m ³ 15 Minuten	TWA: 0.01 mg/m ³ 8 timer	Skin MAK: 0.1 mg/m ³ 8 Stunden	NDSch: 0.2 mg/m ³ 15 minutach TWA: 0.05 mg/m ³ 8 godzinach	TWA: 0.02 mg/m ³ 8 timer STEL: 0.06 mg/m ³ 15 minutter. fume
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Cobalt, powder	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ 8 satima.	TWA: 0.1 mg/m ³ 8 hr.		TWA: 0.05 mg/m ³ 8 hodinách. Ceiling: 0.1 mg/m ³
Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Cobalt, powder	TWA: 0.05 mg/m ³ 8 tundides.		TWA: 0.1 mg/m ³	STEL: 0.4 mg/m ³ 15 percekben. TWA: 0.1 mg/m ³ 8 órában.	TWA: 0.02 mg/m ³ 8 klukkustundum. dust and fume Ceiling: 0.04 mg/m ³ dust and fume
Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Cobalt, powder	TWA: 0.5 mg/m ³	TWA: 0.05 mg/m ³			
Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Cobalt, powder	TWA: 0.01 mg/m ³ Skin notation STEL: 0.05 mg/m ³ aerosol	Ceiling: 0.1 mg/m ³ TWA: 0.5 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.5 mg/m ³ 8 urah inhalable fraction TWA: 0.1 mg/m ³ 8 urah inhalable fraction, other STEL: 2 mg/m ³ 15 minutah inhalable fraction STEL: 0.4 mg/m ³ 15 minutah other inhalable fraction	LLV: 0.05 mg/m ³ 8 timmar. total dust	

Biological limit values

List source(s):

Component	European Union	United Kingdom	France	Spain	Germany
Cobalt, powder			Cobalt: 0.001 mg/L blood end of shift at end of workweek Cobalt: 0.015 mg/L urine end of shift at end of workweek	Cobalt: 15 µg/L urine end of workweek Cobalt: 1 µg/L blood end of workweek	
Component	Italy	Finland	Denmark	Bulgaria	Romania
Cobalt, powder					Cobalt: 15 µg/L urine end of work week Cobalt: 1 µg/L blood end of work week

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

MDHS30/2 Cobalt and cobalt compounds in air Laboratory method using flame atomic absorption spectrometry

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Cobalt, powder

Derived No Effect Level (DNEL) No information available.

<u>Route of exposure</u>	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral Dermal Inhalation				

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. 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

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations	-	EN 374	(minimum requirement)

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 compatibility, 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.

Skin and body protection Long sleeved clothing

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.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Grey	
Physical State	Solid.	
Odor	odorless	
Odor Threshold	No data available	
pH	No information available.	
Melting Point/Range	1495°C / 2723°F	
Softening Point	No data available	
Boiling Point/Range	2870°C / 5198°F	@ 760 mmHg
Flash Point	Not applicable	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	
Bulk Density	No data available	
Water Solubility	Insoluble	
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

Molecular Formula	Co
Molecular Weight	58.93

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity None known, based on information available.

10.2. Chemical stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.

10.4. Conditions to avoid Incompatible products, Excess heat.

10.5. Incompatible materials Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Cobalt oxides.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Product Information****(a) acute toxicity;**

Oral	Category 4
Dermal	No data available
Inhalation	Category 1

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cobalt, powder	6170 mg/kg (Rat)		10 mg/L (Rat) 1 h

(b) skin corrosion/irritation; No data available**(c) serious eye damage/irritation;** Category 2**(d) respiratory or skin sensitization;**

Respiratory	Category 1
Skin	Category 1

No information available.

(e) germ cell mutagenicity; No data available

In vitro tests have shown mutagenic effects

(f) carcinogenicity; Category 1B

Cobalt has not been shown to be carcinogenic to humans. The National Toxicology Program (NTP) does not recognize cobalt as an animal or human carcinogen. This product is a cobalt containing compound. The International Agency for Research on Cancer (IARC) classifies cobalt as "possibly carcinogenic" to human (IARC 2B) based on animal studies. Refer to IARC website (www.iarc.fr) for most recent information. ACGIH (American Conference of Governmental Industrial Hygienist) has given Cobalt and Cobalt Inorganic Compounds a rating of A3, animal carcinogen. ACGIH states that available epidemiologic studies do not confirm an increased risk of cancer in exposed humans.

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
Cobalt, powder			Cat. 3 Cat. 2	Group 2A Group 2B

(g) reproductive toxicity; Category 1B**(h) STOT-single exposure;** No data available**(i) STOT-repeated exposure;** No data available**Target Organs** Skin, Respiratory system, Central nervous system (CNS), Liver, Kidney, Thyroid.**(j) aspiration hazard;** Not applicable
Solid**Other Adverse Effects** See actual entry in RTECS for complete information

**Symptoms / effects,
both acute and delayed**

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

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. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system..

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Cobalt, powder	100 mg/L LC50 96 h			

12.2. Persistence and degradability

The product includes heavy metals. Prevent release into the environment. Special pretreatment required

**Persistence
Degradability
Degradation in sewage
treatment plant**

Insoluble in water, May persist.
Not relevant for inorganic substances.
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential

May have some potential to bioaccumulate Product has a high potential to bioconcentrate

12.4. Mobility in soil

No information available. Is not likely mobile in the environment due its low water solubility.

**12.5. Results of PBT and vPvB
assessment**

No data available for 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**13.1. Waste treatment methods****Waste from Residues / Unused
Products**

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.. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

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. Can be incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains.

SECTION 14: TRANSPORT INFORMATION**IMDG/IMO****14.1. UN number**

UN3089

14.2. UN proper shipping name

METAL POWDER, FLAMMABLE, N.O.S.

14.3. Transport hazard class(es)

4.1

14.4. Packing group

II

ADR

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Cobalt, powder

14.1. UN number	UN3089
14.2. UN proper shipping name	METAL POWDER, FLAMMABLE, N.O.S.
14.3. Transport hazard class(es)	4.1
14.4. Packing group	II

IATA

14.1. UN number	UN3089
14.2. UN proper shipping name	METAL POWDER, FLAMMABLE, N.O.S.
14.3. Transport hazard class(es)	4.1
14.4. Packing group	II

14.5. Environmental hazards Dangerous for the environment

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Cobalt, powder	231-158-0	-		X	X	-	X	-	X	X	X

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Cobalt, powder	nwg - nicht wassergefährdend (non-hazardous to waters)	Class II : 2.5 g/h (Massenstrom) Class II : 0.5 mg/m ³ (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)
Cobalt, powder	Tableaux des maladies professionnelles (TMP) - RG 65 RG 70 RG 70bis RG 70ter

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 Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

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 not been conducted

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R11 - Highly flammable

R22 - Harmful if swallowed

R26 - Very toxic by inhalation

R36 - Irritating to eyes

R49 - May cause cancer by inhalation

R60 - May impair fertility

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R42/43 - May cause sensitization by inhalation and skin contact

ACR45391

Cobalt, powder

SECTION 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3**

H228 - Flammable solid
H302 - Harmful if swallowed
H330 - Fatal if inhaled
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350i - May cause cancer by inhalation
H360F - May damage fertility
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

CAS - Chemical Abstracts Service	TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances	DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances	ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances	AICS - Australian Inventory of Chemical Substances
KECL - Existing and Evaluated Chemical Substances	NZIoC - New Zealand Inventory of Chemicals
WEL - Workplace Exposure Limit	TWA - Time Weighted Average
ACGIH - American Conference of Industrial Hygiene	IARC - International Agency for Research on Cancer
DNEL - Derived No Effect Level	PNEC - Predicted No Effect Concentration
RPE - Respiratory Protective Equipment	LD50 - Lethal Dose 50%
LC50 - Lethal Concentration 50%	EC50 - Effective Concentration 50%
NOEC - No Observed Effect Concentration	POW - Partition coefficient Octanol:Water
PBT - Persistent, Bioaccumulative, Toxic	vPvB - very Persistent, very Bioaccumulative
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road	ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code	MARPOL - International Convention for the Prevention of Pollution from Ships
OECD - Organisation for Economic Co-operation and Development	ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor	VOC - Volatile Organic Compounds

Key literature references and sources for data

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

Training Advice

Chemical incident response training.

Creation Date	18-Oct-2010
Revision Date	29-Aug-2013
Revision Summary	
Reason for revision	Not applicable

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

Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet