MATERIAL SAFETY DATA SHEET

EPICHLOROHYDRIN

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:	EPICHLOROHYDRIN
Alternative names:	1-chloro-2,3-epoxypropane, 3-chloro-1,2-epoxypropane
Chemical name:	Epichlorohydrin
CAS Number:	106-89-8
EC Number:	203-439-8
REACH Registration No.	01-2119457436-33-XXXX

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

Identified use(s):	Chemical intermediate. To be handled under strictly controlled conditions.
Uses advised against:	Professional use; Consumer use

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)

Self-classification:

Acute Tox. 3:	Toxic if swallowed
Acute Tox. 3:	Toxic if inhaled
Acute Tox. 3:	Toxic in contact with skin
Aquatic Chronic 3:	Harmful to aquatic life with long lasting effects.
Carc. 1B:	May cause cancer
Eye Dam. 1:	Causes serious eye damage.
Flam. Liq. 3:	Flammable liquid and vapour.
Repr. 2:	Suspected of damaging fertility or the unborn child.
Skin Corr. 1B:	Causes severe skin burns and eye damage
Skin Sens. 1:	May cause an allergic skin reaction.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

EPICHLOROHYDRIN

Product Name	EPICHLOROHYDRIN
Hazardous Pictogram(s)	 GHS02 GHS06 GHS05 GHS08
Signal Word(s)	Danger
Hazard Statement(s)	H226: Flammable liquid and vapour. H301: Toxic if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H331: Toxic if inhaled. H350: May cause cancer. H361: Suspected of damaging fertility or the unborn child. H412: Harmful to aquatic life with long lasting effects.
Precautionary Statement(s)	P201: Obtain special instructions before use. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear protective gloves / protective clothing / eye protection / face protection. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P308+P313: IF exposed or concerned: Get medical advice/attention. P403+P233: Store in a well-ventilated place. Keep container tightly closed.
Additional label requirements	None.

2.3 Other hazards None known.

2.4 Additional information For full text of H/P Statements see Section 16.

Section 3: Composition/information on ingredients

3.1 Substances

Hazardous ingredient(s)	CAS No.	EC No./REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)	Specific concentration limits; M-Factor
1-chloro-2,3-epoxypropane epichlorohydrin	106-89-8	203-439-8 01-2119457436-33-XXXX	99-100	Flam. Liq. 3 H226 Acute Tox. 3 H301 Acute Tox. 3 H311 Skin Corr. 1B H314 Skin Sens. 1 H317 Eye Dam. 1 H318 Acute Tox. 3 H331	GHS02 GHS06 GHS05 GHS08	None.

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				Carc. 1B H350 Repr. 2 H361 Aquatic Chronic 3 H412		

3.2 Mixtures Not applicable

Section 4: First aid measures

4.1 Description of first aid measures

Inhalation: Remove person to fresh air and keep comfortable for breathing. Administer oxygen if available and artificial respiration if necessary. TRANSFER TO HOSPITAL IMMEDIATELY.

Skin contact: Take off immediately all contaminated clothing. And wash it before reuse. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact: Rinse cautiously with waster for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.

Ingestion: Rinse mouth. Do not induce vomiting. Immediately call a POISON CETNRE/doctor. TRANSFER TO HOSPITAL IMMEDIATELY.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: High concentrations: May cause: Headache, Dizziness, Tiredness, Nausea, Vomiting. Irritation of the respiratory tract. Risk of: Lung oedema, Chemical pneumonitis. Causes damage to the central nervous system if inhaled.

Skin Contact: Irritation, Redness, Swelling of tissue, Burns. Can be absorbed through the skin. May cause an allergic skin reaction.

Eye Contact: Redness, Lachrymation. Causes severe eye irritation. Risk of temporary eye lesions.

Ingestion: May cause nausea, vomiting, severe abdominal pain and diarrhoea, Causes severe irritation. Risk of convulsions, loss of consciousness, deep coma and cardiopulmonary arrest. May cause: Liver and kidney injuries

4.3 Indication of any immediate medical attention and special treatment needed

In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine). Obtain immediate medical attention. Medical examination necessary even only on suspicion of intoxication.

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: In case of fire, use: Foam, CO2 or dry powder

Unsuitable extinguishing media: Water jet spray

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Decomposes in a fire giving off toxic fumes: Hydrogen chloride gas, Phosgene, Carbon monoxide

5.3 Advice for firefighters
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions. Dike fire control water for later disposal.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. Remove all ignition sources. Ensure full personal protection (including respiratory protection) during removal of spillages. Stop leak if safe to do so. Cover the spreading liquid with foam in order to slow down the evaporation.

6.2 Environmental precautions
Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up
Absorb spillages onto sand, earth or any suitable absorbent material. Contain spillages with sand, earth or any suitable absorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.

6.4 Reference to other sections
See also Section 8, 13.

6.5 Additional information
None

Section 7: Handling and storage

7.1 Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Equipment should be earthed. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Wash hands and exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
Store in a well-ventilated place. Keep away from heat and sources of ignition. Keep container tightly closed.
Appropriate packaging: Stainless steel, Steel (drums).

Storage temperature	Ambient.
Storage life	Stable under normal conditions.
Incompatible materials	Oxidizing agents, Earth metals, Alcohols, amines, Alkalis.

7.3 Specific end use(s)
Contact supplier for further information.

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Section 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Substance	CAS No.	LTEL (8hr TWA ppm)	LTEL (8hr TWA mg/m^3)	STEL (ppm)	STEL (mg/m^3)	Note
1-Chloro-2,3- epoxypropane (Epichlorohydrin)	106-89-8	Check for country specific OELs				

8.1.2 PNECs and DNELs

DNEL/DMEL	Oral	Inhalation	Dermal
Industry - Long Term - Local effects		1.52 mg/m^3	
Industry - Long Term - Systemic effects		1.52 mg/m^3	
Industry - Short term - Local effects		1.52 mg/m^3	
Industry - Short term - Local effects		1.52 mg/m^3	
Consumer - Long Term - Local effects			
Consumer - Long Term - Local effects			
Consumer - Short term - Local effects			
Consumer - Short term - Systemic effects			

Environment	PNEC
Aquatic Compartment (including sediment)	Fresh water: 0.0106 mg/l Marine water: 0.00106 mg/l Fresh water (sediment): 0.0572 mg/kg(dw) Marine water (sediment): 0.00572 mg/kg(dw) Intermittent release: 0.106 mg/l
Terrestrial compartment	Soil: 0.00522 mg/kg(dw) Sewage treatment plant: 27.5 mg/l
Atmospheric Compartment	Not known.

8.2 Exposure controls /

8.2.1 Appropriate engineering controls

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2 Personal protective equipment

Eye protection: Wear eye protection with side protection (EN166). Goggles giving protection to eyes

Skin protection: Wear protective clothing and gloves: Impervious gloves (EN 374). The following materials are suitable for protective gloves (permeation time >= 8 hours): Butyl rubber (0.5mm). Unsuitable gloves materials: Natural rubber, Nitrile rubber, Fluorocarbon rubber (0.4 mm), Polychloroprene CR (0.5 mm), Polyvinyl Chloride.

Respiratory protection A suitable mask with filter type A (EN14387 or EN405) may be appropriate. For high (or unknown) concentrations suitable respiratory equipment with positive air supply must be worn (EN 139 air-line BA or EN 137 self-contained BA).

Thermal hazards Not applicable.

8.2.3 Environmental Exposure Controls
Avoid release to the environment

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Pungent.
Melting point/freezing point	-57°C @ 1013.25hPa
Boiling point or initial boiling point and boiling range	117°C @ 1013hPa
Flammability	Flammable liquid and vapour.
Lower and upper explosion limit	3.8 - 21.0 %(V)
Flash Point	28°C @ 1013hPa [Closed cup], 40°C @ 1013hPa [Open cup]
Auto-ignition temperature	385°C @ 1013hPa
Decomposition Temperature (°C)	ca. 225°C
pH	Not established.
Kinematic Viscosity	Not known.
Solubility	Solubility (Water): 65.9g/l @ 25°C @ pH: 6-8 Solubility (Other): Soluble in: Common organic solvents.
Partition coefficient n-octanol/water (log value)	Log Pow: 0.45 @ pH: 6.8-7.1
Vapour pressure (Pa)	22.8hPa @ 25°C
Density and/or relative density (g/ml)	1.18 @ 20°C
Relative vapour density	3.2
Particle characteristics	Not applicable.

9.2 Other information

Molecular weight	92.53g/mol
Explosive properties	May form explosive mixtures with air. Oxidising properties Not oxidising. Corrosivity Non-corrosive
Odour threshold	Not established.
Dynamic viscosity (mPa.s)	Dynamic viscosity: 1.037mPa•s @ 20°C
Evaporation rate	Not available.
Surface tension	72.3mN/m 1.01g/l @ 21.5°C (solution)

Section 10: Stability and Reactivity

10.1 Reactivity	May decompose on long exposure to light. Risk of explosion
10.2 Chemical Stability	Stable under normal conditions.

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10.3 Possibility of hazardous reactions	Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.
10.4 Conditions to avoid	Avoid friction, sparks, or other means of ignition. Avoid overheating. Keep away from direct sunlight.
10.5 Incompatible materials	Oxidizing agents, Earth metals, Alcohols, amines, Alkalis.
10.6 Hazardous decomposition products	Thermal decomposition will evolve: Hydrogen chloride gas, Phosgene, Carbon monoxide

Section 11: Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Ingestion	Toxic if swallowed. LD50 (rat) (male): 282mg/kg LD50 (rat) (female): 175mg/kg
Acute toxicity - Skin Contact	Toxic in contact with skin. LD50 (rat) (male/female): 515mg/kg
Acute toxicity - Inhalation	Toxic if inhaled. LC50 (rat) (Vapour): 4114mg/m³
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitization data	May cause an allergic skin reaction.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	May cause cancer. Oral (Target Organs: Stomach) LOAEL (rat) (prolonged exposure): 2mg/kg Inhalation (Target Organs: Nasal inner lining) LOAEC (rat) (prolonged exposure): 113mg/m³
Reproductive toxicity	Suspected of damaging fertility or the unborn child. Toxicity to reproduction/Fertility Oral (Target Organs: male reproductive organs) NOAEL parent: (rat) (male): 25mg/kg Effects on fertility Oral NOAEL parent: (rat) (females): 100mg/kg Highest dose tested no observed effect Inhalation (Target Organs: male reproductive organs) NOAEC parent: (rat) (male): 5ppm(m) Effects on fertility Inhalation Highest dose tested no observed effect Some evidence of adverse effects on sexual function and fertility, based on animal experiments. Developmental Toxicity, Teratogenicity Inhalation NOAEL teratogenicity: (rat) (female): 25ppm(m)

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	NOAEL maternal: (rat) (female): 2.5ppm(m) No effect observed on development, no teratogenic effects have been observed Inhalation NOAEL teratogenicity: (rabbit) (female): 25ppm(m) NOAEL maternal: (rabbit) (females): 25ppm(m) No effect observed on development, no teratogenic effects have been observed
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified. Oral (Target Organs: Stomach) NOAEL (rat) (male/female): 1mg/kg/day
Inhalation	NOAEL (rat) (male/female): 18.9mg/m³
Inhalation	NOAEL (mouse)(male/female): 18.9mg/m³
Aspiration hazard	Not classified.
11.2 Information on other hazards	Not known.

Section 12: Ecological Information

12.1 Toxicity

	Harmful to aquatic life with long lasting effects.
Toxicity - Aquatic invertebrates	Daphnia magna (Water flea) EC50 (48 hour): 23.9mg/l
Toxicity - Fish	Pimephales promelas (Fathead minnow) LC50 (96 hour): 10.6mg/l
Toxicity - Algae	Pseudokirchneriella subcapitata (green algae) EC50 (72 hour) (Growth rate): 15mg/l
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

Abiotic Degradation
Stability in water half-life: 7.3d @ 68°F (20°C) @ pH: 4.0, 7.0, 9.0
Photodegradation: Medium, air
Indirect photo-oxidation
Half-life indirect photolysis: 36.5 Days
Biodegradation
Biodegradability

Aerobic
Method: OECD Test Guideline 301: ca. 18%, 14 Days
Not readily biodegradable.

Method: OECD Test Guideline 301 (by analogy): 92.5%, 14 Days
Readily biodegradable.
Method: Degradation in sewage treatment plants (by analogy): 98%, 2 hour(s).
The substance is considered to be rapidly degradable in the environment.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: The substance has no potential for bioaccumulation.
Bioconcentration factor (BCF): The substance does not bioaccumulate.

12.4 Mobility in soil

Adsorption potential (Koc)
Water: The substance evaporates slowly.
Emission to air: Hydrolysis
Soil: Considerable percolation.

12.5 Result of PBT and vPvB assessment

Not classified as PBT or vPvB

12.6 Endocrine disrupting properties

None known

12.7 Other adverse effects

Microorganisms
NOEC (Pseudomonas putida) (16 hour(s)): 27.5 mg/l

Section 13: Disposal considerations

13.1 Waste treatment methods
Refer to manufacturer/supplier for information on recovery/recycling. The organic ingredients can be incinerated in a suitable installation when in accordance with local regulations.

13.2 Additional Information
Disposal should be in accordance with local, state or national legislation.

Section 14: Transport Information

14.1 UN number or ID number
UN No. 2023

14.2 UN proper shipping name
UN proper shipping name EPICHLOROHYDRIN

14.3 Transport hazard class(es)

ADR/RID Class	6.1
IMDG Class	6.1
IMDG EMS	Not available

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ICAO/IATA

Excepted Quantities	Not applicable
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Not applicable
Passenger and Cargo Aircraft Limited Quantities Max net Qty	Not applicable
Passenger and Cargo Aircraft Packing Instructions	Not applicable
Passenger and Cargo Aircraft Max net Qty	Not applicable
Cargo Aircraft Packing Instructions	Not applicable
Cargo Aircraft Max net Qty	Not applicable
Special Provisions	Not applicable
Emergency Response Guidebook (ERG) Code	Not applicable
ADR Classification Code	TF1
ADR HIN	63
ADR Transport Category	2
Tunnel Restriction Code	D/E
Emergency Action Code	Not applicable
APP Advice on Additional Personal Protection (APP)	Not applicable

14.4 Packing group

Packing group	II
Labels	6.1 +3

Special Provisions	279
Limited Quantities	100m
Excepted Quantities	E4
Mixed Packing Instructions for Packages	P001 IBC02
Special Packing Provisions for Packages	Not applicable
Mixed Packing Instructions for Packages	MP15

14.5 Environmental hazards

Environmental hazards	Not classified as a Marine Pollutant

14.6 Special precautions for user

Special precautions for user	Not known.

14.7 Maritime transport in bulk according to IMO instruments

Product Name	EPICHLOROHYDRIN
Ship Type	2
Pollution Category	Y
Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP2
Tank Code for Tanks	L4BH
Special Provisions for Tanks	TU15 TE19
Vehicle for Tank Carriage	FL

Special Provisions for Carriage - Packages	Not applicable
Special Provisions for Carriage - Bulk	Not applicable
Special Provisions for Carriage - Loading, Unloading and Handling	CV13 CV28
Special Provisions for Carriage - Operation	S2 S9 S19

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation	Not listed
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	1-chloro-2,3-epoxypropane (106-89-8) Listed under Entry No28. Listed under Entry No40.
Community Rolling Action Plan (CoRAP)	Not listed
Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed
SEVESO SUBSTANCE (Directive 2012/18/EU)	Yes.

Seveso Code	Description	Lower Tier Qualifying quantity (te)	Upper Tier Qualifying quantity (te)
P5a	FLAMMABLE LIQUIDS (stored at above boiling point)	10	50
P5b	FLAMMABLE LIQUIDS (high press/temp process conditions)	50	200
P5c	FLAMMABLE LIQUIDS (stored at below boiling point)	5000	50000
H2	ACUTE TOXIC Category 3, inhalation exposure route	50	200

National regulations

Germany	Wassergefährdungsklasse (WGK) Kenn-Numm: 92	WGK 3

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has been carried out.

15.3 Inventory Status

Listed in: Australia (AICS), Canada (DSL/NDSL), China (IECSC), European Union (EINECS/ELINCS), Japan (ENCS), South Korea (KECI), Mexico (INSQ), New Zealand Inventory (NZIoC), Philippines (PICCS), Switzerland, Taiwan (TCSI), Thailand, United States (TSCA).

EPICHLOROHYDRIN

Section 16: Other Information

LEGEND

Hazard Pictogram(s)


GHS02


GHS06


GHS05


GHS08

Hazard Statement(s)

H226:	Flammable liquid and vapour.
H301:	Toxic if swallowed.
H311:	Toxic in contact with skin.
H314:	Causes severe skin burns and eye damage.
H317:	May cause an allergic skin reaction.
H318:	Causes serious eye damage.
H331:	Toxic if inhaled.
H350:	May cause cancer.
H361:	Suspected of damaging fertility or the unborn child.
H412:	Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

P201:	Obtain special instructions before use.
P202:	Do not handle until all safety precautions have been read and understood.
P210:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233:	Keep container tightly closed.
P240:	Ground/bond container and receiving equipment.
P241:	Use explosion-proof electrical/ventilating/lighting/equipment.
P242:	Use only non-sparking tools.
P243:	Take precautionary measures against static discharge.
P260:	Do not breathe vapour.
P261:	Avoid breathing vapours.
P264:	Wash hands and exposed skin thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P271:	Use only outdoors or in a well-ventilated area.
P272:	Contaminated work clothing should not be allowed out of the workplace.
P273:	Avoid release to the environment.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310:	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P301+P330+P331:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352:	IF ON SKIN: Wash with plenty of water.
P303+P361+P353:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340:	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310:	Immediately call a POISON CENTER/doctor.
P311:	Call a POISON CENTER/doctor.
P312:	Call a POISON CENTER/doctor if you feel unwell.
P321:	Specific treatment (see on this label).
P330:	Rinse mouth.
P333+P313:	If skin irritation or rash occurs: Get medical advice/attention.
P361+P364:	Take off immediately all contaminated clothing. And wash it before reuse.
P362+P364:	Take off contaminated clothing and wash it before reuse. P363: Wash contaminated clothing before reuse.
P370+P378:	In case of fire: Use water spray, foam, dry powder or CO2 to extinguish.
P403+P233:	Store in a well-ventilated place. Keep container tightly closed.
P403+P235:	Store in a well-ventilated place. Keep cool.
P405:	Store locked up.
P501:	Dispose of this material and its container as hazardous waste.

Acronyms

ADN:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	Chemical Abstracts Service
CLP:	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL:	Derived No Effect Level
EC:	European Community
EINECS:	European Inventory of Existing Commercial Chemical Substances
IATA:	International Air Transport Association
IBC:	Intermediate Bulk Container
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods
LTEL:	Long term exposure limit
PBT:	Persistent, Bioaccumulative and Toxic
PNEC:	Predicted No Effect Concentration
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL:	Short term exposure limit
STOT:	Specific Target Organ Toxicity
UN:	United Nations
vPvB:	very Persistent and very Bioaccumulative

Disclaimers

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose.

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info@eastharbourgroup.com +44 (0)333 242 0100