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

1.1 Product identifier

Trade name : XC065-K60 hebro®nol DS

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

Use of the Substance/Mixture : Cleaner for professional application in industry and trade

1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group GmbH
Rostocker Str. 40
41199 Mönchengladbach
Contact person : Wolfgang Schaffers
Telephone : +49 (0) 2166 6009-0
Telefax : +49 (0) 2166 6009-99

Contact person product safety Abteilung Produktsicherheit
Telephone : +49(0)2166 6009-176
E-mail address : wolfgang.schaffers@chemetall.com

1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:
+49 (0) 361 730 730

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P261 Avoid breathing mist or vapours.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of 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.
P310 Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label:
Alcohols, C12-15, ethoxylated, 1-2.5 EO

Dipentene

Citral

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Deodorizing agent based of cationic and nonionic tensides as well as scents

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (% w/w)
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5 203-961-6 01-2119475104-44	Eye Irrit. 2; H319	>= 3 - < 10
Alcohols, C12-15, ethoxylated, 1-2.5 EO	68131-39-5 500-195-7 01-2119488720-33	Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	>= 3 - < 10
Dipentene	138-86-3 227-813-5	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Acute 1;	>= 1 - < 2.5

		H400 Aquatic Chronic 1; H410 Note C	
Terpineol	8000-41-7 232-268-1 01-2119553062-49	Eye Irrit. 2; H319 Skin Irrit. 2; H315	>= 1 - < 2.5
Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride	Not Assigned 01-2119965180-41	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor Acute aquatic toxicity:10 M-Factor Chronic aquatic toxicity:1	>= 0.25 - < 1
Citral	5392-40-5 226-394-6 01-2119462829-23	Skin Irrit. 2; H315 2; H319 Skin Sens. 1; H317	>= 0.1 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of skin contact : After contact with skin, wash immediately with plenty of water.
Take off contaminated clothing and shoes immediately.
If symptoms persist, call a physician.

In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment when symptoms develop due to contact with eyes.
If eye irritation persists, consult a specialist.

If swallowed : Call a physician immediately.
Keep patient warm and at rest.
Immediately give large quantities of water to drink.
Prevent vomiting if possible.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes skin irritation.
Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry powder Water spray jet
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Combustion may cause: Carbon dioxide (CO2) Carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Handle in accordance with good industrial hygiene and safety practice.

6.2 Environmental precautions

Environmental precautions	:	Inform the relevant authorities if it enters sewers, aquatic environment or soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See chapter
8
and
13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
Ensure adequate ventilation.
When using do not eat, drink or smoke.
For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Follow the water regulations. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container at temperature not exceeding 50°C.

Further information on storage conditions : Keep away from heat. Keep away from food, drink and animal feedingstuffs. Keep at temperatures between 5°C and 45°C.

7.3 Specific end use(s)

Specific use(s) : Cleaner for professional application in industry and trade

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5	TWA	10 ppm 67.5 mg/m3	2006/15/EC
Further information	Indicative			
		STEL	15 ppm 101.2 mg/m3	2006/15/EC
Further information	Indicative			
		TWA	10 ppm 67.5 mg/m3	GB EH40
		STEL	15 ppm 101.2 mg/m3	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Workers	Inhalation	Long-term systemic effects	67.5 mg/m3
	Workers	Inhalation	Long-term local effects	67.5 mg/m3
	Workers	Inhalation	Acute local effects	101.2 mg/m3
	Workers	Skin contact	Long-term systemic	20 mg/kg

			effects	bw/day
Alcohols, C12-15, ethoxylated, 1-2.5 EO	Workers	Inhalation	Long-term systemic effects	294 mg/m3
	Workers	Skin contact	Long-term systemic effects	2080 mg/kg bw/day
Dipentene	Workers	Inhalation	Long-term systemic effects	33.3 mg/m3
Terpineol	Workers	Inhalation	Long-term systemic effects	5.8 mg/m3
	Workers	Skin contact	Long-term systemic effects	1.17 mg/kg bw/day
Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride	Workers	Inhalation	Long-term systemic effects	3.96 mg/m3
	Workers	Skin contact	Long-term systemic effects	5.7 mg/kg bw/day
Citral	Workers	Inhalation	Long-term systemic effects	9 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Fresh water	1 mg/l
	Marine water	0.4 mg/l
	Estuary sediment	4 mg/l
Terpineol	Fresh water	0.062 mg/l
	Marine water	0.0062 mg/l
	Sewage treatment plant	2.57 mg/l
	Fresh water sediment	0.442 mg/kg dry weight (d.w.)
	Marine sediment	0.044 mg/kg dry weight (d.w.)
	Soil	0.052 mg/kg dry weight (d.w.)
Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride	Fresh water	0.0009 mg/l
	Marine water	0.00096 mg/l
	Sewage treatment plant	0.4 mg/l
	Intermittent use/release	0.00016 mg/l
	Fresh water sediment	12.27 mg/kg dry weight (d.w.)
	Marine sediment	13.09 mg/kg dry weight (d.w.)
	Soil	7 mg/kg dry weight (d.w.)

8.2 Exposure controls

Personal protective equipment

Eye protection : Face-shield
Safety glasses with side-shields conforming to EN166

Hand protection
Material : Chemical resistant gloves made of butyl rubber or nitrile rub-

ber category III according to EN 374.

Remarks	:	The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed.
Skin and body protection	:	Long sleeved clothing
Respiratory protection	:	Use respirator when performing operations involving potential exposure to vapour of the product.
Protective measures	:	Follow the skin protection plan.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	aromatic
Odour Threshold	:	No data available
pH	:	7.6 (20 °C) (undiluted)
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1 g/cm³ (20 °C) Method: DIN 51757
Solubility(ies)		
Water solubility	:	1,000 g/l completely soluble

Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

Other physico-chemical properties: This information is not available/not determined.

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.
In case of fire hazardous decomposition products may be produced such as:
Carbon dioxide (CO2)
Carbon monoxide
Smoke

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Based on available data, the classification criteria are not met.

Acute toxicity

Components:

2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether:

Acute oral toxicity	:	LD50 (Rat): 3,384 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): 2,700 mg/kg

Alcohols, C12-15, ethoxylated, 1-2.5 EO:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: no
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: no

Terpineol:

Acute oral toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): > 4.67 mg/l Exposure time: 4 h Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg Method: OECD Test Guideline 402

Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride:

Acute oral toxicity	:	LD50 (Rat): > 300 - 2,000 mg/kg Method: OECD Test Guideline 401

Skin corrosion/irritation

Product:

Remarks: Causes skin irritation.

Serious eye damage/eye irritation

Product:

Remarks: Causes serious eye damage.

Respiratory or skin sensitisation

Product:

Remarks: May cause sensitisation by skin contact.

Germ cell mutagenicity

Product:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Components:

Alcohols, C12-15, ethoxylated, 1-2.5 EO:

Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: no

: Test Type: Ames test
Species: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: no

: Test Type: Chromosome aberration test in vitro
Species: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

: Test Type: In vitro mammalian cell gene mutation test
Species: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Product:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Product:
Based on available data, the classification criteria are not met.

STOT - single exposure

Product:
Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:
Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:
Based on available data, the classification criteria are not met.

Further information

Product:
Remarks: Health injuries are not known or expected under normal use.

SECTION 12: Ecological information

12.1 Toxicity

Product:
Ecotoxicology studies for the product are not available.

Components:

2-(2-Butoxyethoxy)ethanol; diethylene glycol monobutyl ether:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2,750 mg/l
Exposure time: 48 h
Method: DIN 38412

LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 2,850 mg/l
Exposure time: 48 h

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Alcohols, C12-15, ethoxylated, 1-2.5 EO:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.775 - 1.3 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Pimephales promelas (Fathead minnow)): 1.16 - 2.15 mg/l
Exposure time: 96 h
Test Type: static test

NOEC (Lepomis macrochirus (Bluegill sunfish)): > 0.33 mg/l
Exposure time: 30 d
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.14 mg/l
Exposure time: 48 h
Test Type: static test

NOEC (Daphnia (water flea)): 0.77 mg/l
Exposure time: 21 d
Test Type: flow-through test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.75 mg/l
Exposure time: 72 h
Test Type: static test

Terpineol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 62 - 80 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

NOEC (Danio rerio (zebra fish)): 62 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 73 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 73 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 40 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 68 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 3.9 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Quaternary ammonium compound, alkyl (C12-C16) dimethyl benzyl ammonium chloride:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): > 0.1 - 1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 0.01 - 0.1 mg/l Exposure time: 48 h Method: Directive 67/548/EEC, Annex V, C.2. NOEC (Daphnia magna (Water flea)): > 0.01 - 0.1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.01 - 0.1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): > 0.001 - 0.01 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: No data available

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological infor-	:	Do not flush into surface water or sanitary sewer system.

mation

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Do not let product enter drains. Do not dispose of with domestic refuse. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Contaminated packaging	:	If recycling is not practicable, dispose of in compliance with local regulations. Since emptied containers retain product residues (vapour and/or liquid) follow all MSDS/label warnings after container is emptied.
Waste Code	:	070601 : aqueous washing liquids and mother liquors

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
IATA	:	UN 3082

14.2 UN proper shipping name

ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dipentene; Limonene)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dipentene; Limonene)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dipentene; Limonene)
IATA	:	Environmentally hazardous substance, liquid, n.o.s. (Dipentene; Limonene)

14.3 Transport hazard class(es)

ADR	:	9
RID	:	9
IMDG	:	9
IATA	:	9

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(E)

RID

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Remarks	:	"IMDG-Code segregation group not applicable".

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous Dangerous Goods

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous Dangerous Goods

14.5 Environmental hazards

ADR

Environmentally hazardous	:	no

RID

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

IATA (Passenger)

Marine pollutant	:	yes

IATA (Cargo)

Marine pollutant	:	yes

14.6 Special precautions for user

Refer to protective measures listed in sections 7 and 8.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High	:	Not applicable

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical

Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

GB / EN