according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Contact person

Trade name : XD028-K60 hebro®ÖkoClean Bio

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

Use of the Sub- : Cleaner (solvent) for professional application in industry and

stance/Mixture 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 : Wolfgang Schaffers : +49 (0) 2166 6009-0

Telephone : +49 (0) 2166 6009-0 Telefax : +49 (0) 2166 6009-99

Contact person product safety

Telephone

Abteilung Produktsicherheit
+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)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Serious eye damage, Category 1 H318: Causes serious eye damage.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through pro-

longed or repeated exposure.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms









Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or

repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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.
P362 + P364 Take off contaminated clothing and wash it

before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or

alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

Ethanediol; Ethylene glycol

Isotridecyl alcohol, ethoxylated

Orange, sweet, ext.

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 : Preparation based on alcohols, ionic and nonionic tensides

according to Regulation (EC) No. 1907/2006

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Hazardous components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.	(REGULATION (EC)	(% w/w)
	Registration number	No 1272/2008)	
Ethanediol; Ethylene glycol	107-21-1	Acute Tox. 4; H302	>= 10 - < 25
	203-473-3	STOT RE 2; H373	
	01-2119456816-28		
Isotridecyl alcohol, ethoxylated	9043-30-5	Eye Dam. 1; H318	>= 10 - < 25
	500-027-2	Aquatic Chronic 3;	
		H412	
Orange, sweet, ext.	8028-48-6	Flam. Liq. 3; H226	>= 5 - < 10
	232-433-8	Skin Irrit. 2; H315	
	01-2119493353-35	Skin Sens. 1; H317	
		Asp. Tox. 1; H304	
		Aquatic Chronic 2;	
		H411	
Ethanol	64-17-5	Flam. Liq. 2; H225	>= 3 - < 10
	200-578-6	Eye Irrit. 2; H319	
	01-2119457610-43		
Propan-2-ol	67-63-0	Flam. Liq. 2; H225	>= 3 - < 10
	200-661-7	Eye Irrit. 2; H319	
	01-2119457558-25	STOT SE 3; H336	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled : Provide fresh air.

Keep patient warm and at rest.

If symptoms persist, call a physician.

In case of skin contact : After contact with skin, wash immediately with plenty of soap

and water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes. Seek medical advice.

If swallowed : Call a physician immediately.

Keep at rest.

Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

None known.

according to Regulation (EC) No. 1907/2006

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4.3 Indication of any immediate medical attention and special treatment needed

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

none

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: No information available.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

Further information : Use water spray to cool unopened containers.

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 : Remove all sources of ignition.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Do not let product enter drains.

Inform the relevant authorities if it enters sewers, aquatic envi-

ronment or soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible ab-

sorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in 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

according to Regulation (EC) No. 1907/2006

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Keep away from open flames, hot surfaces and sources of

ignition.

Take precautionary measures against static discharges.

Advice on protection against

fire and explosion

Vapours are heavier than air and may spread along floors.

Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep away from open flames, hot surfaces and sources of

ignition. Keep containers tightly closed in a cool, well-ventilated place. Observe label precautions.

Further information on stor-

age conditions

Keep away from sources of ignition - No smoking. Keep at

temperatures between - 7°C and 40°C.

Advice on common storage : Incompatible with oxidizing agents.

7.3 Specific end use(s)

Specific use(s) : Cleaner (solvent) 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	Control parameters	Basis
		of exposure)		
Ethanediol; Eth-	107-21-1	TWA	20 ppm	2000/39/EC
ylene glycol			52 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	40 ppm	2000/39/EC
			104 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA (Vapour)	20 ppm	GB EH40
			52 mg/m3	
Further information	Can be absorbed through skin. The assigned substances are those for which			
	there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA (particles)	10 mg/m3	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which			
	there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL (Vapour)	40 ppm	GB EH40
			104 mg/m3	
Further information	Can be absorbed through skin. The assigned substances are those for which			
	there are concerns that dermal absorption will lead to systemic toxicity.			
Ethanol	64-17-5	TWA	1,000 ppm	GB EH40
			1,920 mg/m3	
Further information	Where no specific short-term exposure limit is listed, a figure three times the			
	long-term exposure should be used			

according to Regulation (EC) No. 1907/2006

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Propan-2-ol	67-63-0	TWA	400 ppm 999 mg/m3	GB EH40
		STEL	500 ppm 1,250 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
Ethanediol; Ethylene glycol	Workers	Inhalation	Acute local effects	35 mg/m3
	Workers	Skin contact	Long-term systemic effects	106 mg/kg bw/day
Orange, sweet, ext.	Workers	Inhalation	Long-term systemic effects	31.1 mg/m3
	Workers	Skin contact	Long-term systemic effects	8.89 mg/kg bw/day
	Workers	Skin contact	Acute local effects	185.8 µg/cm2
Ethanol	Workers	Inhalation	Long-term systemic effects	950 mg/m3
Propan-2-ol	Workers	Inhalation	Long-term systemic effects	500 mg/m3
	Workers	Skin contact	Long-term systemic effects	888 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
Ethanediol; Ethylene glycol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	199.5 mg/l
	Fresh water sediment	20.9 mg/kg dry weight (d.w.)
	Soil	1.53 mg/kg dry weight (d.w.)
Orange, sweet, ext.	Fresh water	0.005 mg/l
	Marine water	0.0005 mg/l
	Intermittent use/release	0.0058 mg/l
	Sewage treatment plant	2.1 mg/l
	Fresh water sediment	1.3 mg/kg dry weight (d.w.)
	Marine sediment	0.13 mg/kg dry weight (d.w.)
	Soil	0.261 mg/kg dry weight (d.w.)
	Oral	13.3 mg/kg
Propan-2-ol	Fresh water	140.9 mg/l
	Marine water	140.9 mg/l
	Sewage treatment plant	2251 mg/l
	Sediment	552 mg/kg dry weight (d.w.)
	Soil	28 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

according to Regulation (EC) No. 1907/2006

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Personal protective equipment

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

Face-shield

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

Chemical resistant apron

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 : blue

Odour : mild

Odour Threshold : No data available

pH : 8.0 (20 °C)

Concentration: 10 g/l

Melting point/freezing point : No data available

Boiling point/boiling range : Method: DIN 51751

Flash point : 34 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : Upper flammability limit

15.3 %(V)

Lower explosion limit : lower flammability limit

0.7 %(V)

Vapour pressure : No data available

Relative vapour density : No data available

according to Regulation (EC) No. 1907/2006

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Relative density : No data available

Density : 0.99 g/cm³ (20 °C)

Method: DIN 51757

Solubility(ies)

Water solubility : 900 g/l

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : 340 °C

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

Explosive properties : Vapours may form explosive mixture with air.

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 : Product is stable under appropriate usage.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

Carbon monoxid, carbon dioxid.

Smoke

Nitrogen oxides (NOx)

according to Regulation (EC) No. 1907/2006

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Acute toxicity

Components:

Ethanediol; Ethylene glycol:

Acute oral toxicity : LD50 (Rat): > 300 - < 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.5 mg/l

Exposure time: 6 h

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg

Orange, sweet, ext.:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Ethanol:

Acute oral toxicity : LD50 (Rat): 10,470 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 117 - 125 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

Propan-2-ol:

Acute oral toxicity : LD50 (Rat): 5,840 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 30 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 13,900 mg/kg

Method: OECD Test Guideline 402

according to Regulation (EC) No. 1907/2006

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Skin corrosion/irritation

Product:

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

Serious eye damage/eye irritation

Product:

Remarks: The liquid splashed in the eyes may cause irritation and reversible damage.

Respiratory or skin sensitisation

Product:

Remarks: This information is not available.

Germ cell mutagenicity

Product:

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

Germ cell mutagenicity

Components:

Ethanediol; Ethylene glycol:

Genotoxicity in vitro Test Type: Ames test

Result: negative

Orange, sweet, ext.:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Carcinogenicity

Product:

ment

Carcinogenicity - Assess- : Not classifiable as a human carcinogen.

Reproductive toxicity

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

Reproductive toxicity

Components:

Orange, sweet, ext.:

Effects on foetal develop-Species: Rat ment 591 mg/kg

250 mg/kg

according to Regulation (EC) No. 1907/2006

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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: According to many years of experience, there are no known harmful effects when handled properly.

Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology studies for the product are not available.

Components:

Ethanediol; Ethylene glycol:

Toxicity to fish : LC50 (Pimephales promelas (Fathead minnow)): 72,860 mg/l

Exposure time: 96 h Test Type: static test

NOEC (Pimephales promelas (Fathead minnow)): 15,380 mg/l

Exposure time: 7 d

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

NOEC (Ceriodaphnia dubia (water flea)): 8,590 mg/l

Exposure time: 7 d

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 6,500 -

13,000 mg/l

Exposure time: 96 h

Toxicity to microorganisms : EC20 (activated sludge): > 1,995 mg/l

Exposure time: 0.5 h Method: ISO 8192

Orange, sweet, ext.:

according to Regulation (EC) No. 1907/2006

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LC50 (Pimephales promelas (Fathead minnow)): 0.7 mg/l Toxicity to fish

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.67 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

ErC50 (Desmodesmus subspicatus): 150 mg/l Toxicity to algae

Exposure time: 72 h

Method: OECD Test Guideline 201

Ethanol:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 13,000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 12,340 mg/l

Exposure time: 48 h

Toxicity to algae EC50 (Algae): 275 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Propan-2-ol:

Toxicity to fish LC50 (Leuciscus idus (Golden orfe)): 8,970 mg/l

Exposure time: 48 h

LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): 9,714 mg/l

Exposure time: 24 h

Toxicity to algae : EC50 (Scenedesmus subspicatus): > 100 mg/l

Exposure time: 72 h

Toxicity to microorganisms : IC50 (Bacteria): > 100 mg/l

12.2 Persistence and degradability

Product:

: Remarks: No data available Biodegradability

12.3 Bioaccumulative potential

Product:

: Remarks: No data available Bioaccumulation

Components:

Ethanediol; Ethylene glycol:

Partition coefficient: n-

octanol/water

log Pow: -1.36 (23 °C)

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according to Regulation (EC) No. 1907/2006

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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-

mation

Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

Do not let product enter drains.

Do not dispose of with domestic refuse.

Contaminated packaging : Dispose of in accordance with local regulations.

Since emptied containers retain product residues (vapour and/or liquid) follow all MSDS/label warnings after container is

emptied.

Waste Code : 070604 : other organic solvents, washing liquids and mother

liquors

SECTION 14: Transport information

14.1 UN number

 ADR
 : UN 2319

 RID
 : UN 2319

 IMDG
 : UN 2319

 IATA
 : UN 2319

14.2 UN proper shipping name

ADR : TERPENE HYDROCARBONS, N.O.S.

RID : TERPENE HYDROCARBONS, N.O.S.

IMDG : TERPENE HYDROCARBONS, N.O.S.

(Orange, sweet, ext.)

according to Regulation (EC) No. 1907/2006

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IATA : Terpene hydrocarbons, n.o.s.

14.3 Transport hazard class(es)

ADR : 3
RID : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

RID

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III Labels : 3

EmS Code : F-E, S-D

Remarks : "IMDG-Code segregation group not applicable".

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

IATA (Passenger)

Packing instruction (passen- : 355

ger aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Refer to protective measures listed in sections 7 and 8.

according to Regulation (EC) No. 1907/2006

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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

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 imple-

ment all hazard classes and categories.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.

H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways.

H315 : Causes skin irritation.

H317
H318
Causes serious eye damage.
H319
Causes serious eye irritation.
H336
May cause drowsiness or dizziness.

H373 : May cause damage to organs through prolonged or repeated

exposure if swallowed.

H411 : 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 Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

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 - In-

according to Regulation (EC) No. 1907/2006

XD028-K60 hebro®ÖkoClean Bio



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ternational 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.

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