

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Revision date: 18/09/2023 Supersedes version of: 18/10/2022

Version: 2.1

SECTION 1: Iden

Issue date: 24/05/2017

TION 1: Identification of the substance/mixture and of the	e company/undertaking
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1.1. Product identifier

Product form: MixtureTrade name: Hraniclean 04UFI: 51S2-Y045-7009-M0ES

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

1.2.1. Relevant identified uses

Industrial/Professional use spec Use of the substance/mixture

- : For professional use only
- : Cleaner of hardened and uncured PUR adhesives in the wood industry

1.2.2. Uses advised against

No additional information available

Distributor

Hranipex Czech Republic k.s. J. Rýznerové 97, Komorovice CZ– 396 01 Humpolec Czech Republic T +420 565 501 211 <u>cz-hranipex@hranipex.com</u> - <u>www.hranipex.cz</u> E-mail address of competent person responsible for the SDS : sds@regartis.com

Supplier Hranipex Ltd.

Unit 2 Radial Park, Birmingham Business Park Birmingham, B37 7YN United Kingdom T +44 121 767 9180 - F 0121 782 6250 uk-hranipex@hranipex.com - www.hranipex.co.uk

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Acute toxicity (oral), Category 4 H302 Skip corrector (critication Cotegory 2 H315

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Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements	
Labelling according to Regulation (EC) No	0. 1272/2008 [CLP]
Hazard pictograms (CLP)	
Signal word (CLP)	GHS07 : Warning
Contains	: 1-butylpyrrolidin-2-one
Hazard statements (CLP)	: H302 - Harmful if swallowed.
	H315 - Causes skin irritation.
	H319 - Causes serious eye irritation.
Precautionary statements (CLP)	: P262 - Do not get in eyes, on skin, or on clothing.
	P280 - Wear protective gloves.
	P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
	P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313 - If eye irritation persists: Get medical advice/attention.
	P501 - Dispose of contents/container to hazardous or special waste collection point, in
	accordance with local, regional, national and/or international regulation.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier		Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-butylpyrrolidin-2-one	CAS-No.: 3470-98-2 EC-No.: 222-437-8	> 50	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Glycerol	CAS-No.: 56-81-5 EC-No.: 200-289-5	< 27	Not classified
Propylene glycol	CAS-No.: 57-55-6 EC-No.: 200-338-0	< 16	Not classified

Full text of H- and EUH-statements: see section 16

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Issue date: 24/05/2017 **SECTION 4: First aid measures**

4.1. Description of first aid measures	
First-aid measures general	: IF exposed or concerned: Get medical advice/attention. In case of loss of consciousness, place the victim in the recovery position.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Wash skin with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
First-aid measures after ingestion	: Keep the affected person at rest. Do not induce vomiting. Seek medical advice immediately and show this container or label.
4.2. Most important symptoms and effects,	both acute and delayed
Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	 Irritation. Eye irritation. Ingestion may cause nausea and vomiting.

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

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media Unsuitable extinguishing media	Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray. Water fog.Strong water jet.
5.2. Special hazards arising from the subst	ance or mixture
Fire hazard Hazardous decomposition products in case of fire	 Not flammable. On burning: release of carbon monoxide - carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.
5.3. Advice for firefighters	
Firefighting instructions Protection during firefighting	 In case of fire: stop leak if safe to do so. Cool down the containers exposed to heat with a water spray. Exercise caution when fighting any chemical fire. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equipm	nent and emergency procedures	
General measures	: Prevent unauthorised access. Wear personal protective equipment. Avoid contact with skin and eyes.	
6.1.1. For non-emergency personnel		
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Protective goggles or face shield. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. For further information refer to section 8: "Exposure controls/personal protection".	
6.2. Environmental precautions		

Do not allow the mixture to enter into sewer, water system (underground water, surface water) or soil.

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6.3. Methods and materi	al for containment and cleaning up)	
Methods for cleaning up	binding agents to local legisla	uid-binding material (e.g. sand, diatomaceous earth, a). Collect all waste in suitable and labelled containers tion. Notify authorities if product enters sewers or public. Do not use solvents.	and dispose according
6.4. Reference to other	sections		

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and stor	age
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Keep container tight closed. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Tampons or rags soaked with the mixture should be stored in tightly closed metal containers. Wash contaminated clothing before reuse.
7.2. Conditions for safe storage, i	ncluding any incompatibilities
Storage conditions	: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep cool. Protect from sunlight. Keep in properly labelled containers.
Incompatible products	: Strong acids, strong bases and strong oxidants.
Incompatible materials	: PET, PVC packaging.
Storage temperature	: 5 – 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Glycerol (56-81-5)		
United Kingdom - Occupational Exposure Limits		
Local name	Glycerol	
WEL TWA (OEL TWA) [1]	10 mg/m³ mist	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Propylene glycol (57-55-6)		
United Kingdom - Occupational Exposure Limits		
Local name	Propane-1,2-diol	
WEL TWA (OEL TWA) [1]	10 mg/m³ particulates 474 mg/m³ total vapour and particulates	
WEL TWA (OEL TWA) [2]	150 ppm total vapour and particulates	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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Issue date: 24/05/2017 8.1.4. DNEL and PNEC

1-butylpyrrolidin-2-one (3470-98-2)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	24.1 mg/m ³	
PNEC (Sediment)		
PNEC sediment (freshwater)	29.6 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	30.6 mg/l	

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or face shield. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Protective shoes. Protective apron

Hand protection:

Standard EN 374 - Protective gloves against chemicals.

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Wear gloves according to EN374 resistant to the solvent(s) in use.	Ethylene-Propylene rubber (EPDM)	3 (> 60 minutes)	> 0.3 mm	x	EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Mask	Type A - High-boiling (>65 °C) organic compounds	In case of insufficient ventilation, accident, fire, etc	x

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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Immediately remove contaminated clothing or footwear. Wash contaminated clothing before reuse. Do not eat, drink or smoke in areas where product is used. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Transparent.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -75 °C (EINECS 222-437-8)
Boiling point	: 241 °C
Flammability	: Non flammable.
It does not have oxidising properties	: It does not have oxidising properties.
Lower explosion limit	: 0.9 vol %
Upper explosion limit	: 8.7 vol %
Flash point	: 108 °C
Auto-ignition temperature	: 210 °C
Decomposition temperature	: Not available
рН	: Not available
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 1.256
Vapour pressure	: 8 Pa @ 20 °C
Vapour pressure at 50°C	: Not available
Density	: 0.96 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content

: 0.99 kg/kg

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong acids, strong bases and strong oxidants.



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10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature.

11.1. Information on hazard classes as d	lefined in Regulation (EC) No 1272/2008
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	 Harmful if swallowed. Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met)
Glycerol (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
1-butylpyrrolidin-2-one (3470-98-2)	· · · ·
LD50 oral rat	300 – 2000 mg/kg Rattus norvegicus
LD50 dermal rat	> 2000 mg/kg Rattus norvegicus
LC50 Inhalation - Rat	> 5.1 mg/l Rattus norvegicus
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Reproductive toxicity STOT-single exposure STOT-repeated exposure Aspiration hazard	 Causes skin irritation. Causes serious eye irritation. Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met)
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties Adverse health effects caused by endocrine disrupting properties	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
11.2.2. Other information	

SECTION 12: Ecological information 12.1. Toxicity Hazardous to the aquatic environment, short-term : Not classified (Based on available data, the classification criteria are not met) (acute) Hazardous to the aquatic environment, long-term (chronic) Not classified (Based on available data, the classification criteria are not met) Glycerol (56-81-5) LC50 - Fish [1] > 5000 mg/l Carassius auratus EC50 - Other aquatic organisms [1] > 10000 mg/l microorganisms

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EC50 72h - Algae [1]	> 10000 mg/l Scenedesmus subspicatus

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LC50 - Fish [1]	> 100 mg/l Oncorhynchus mykiss			
EC50 - Crustacea [1]	100 mg/l Daphnia magna			
EC50 72h - Algae [1]	> 160 mg/l Pseudokirchneriella subcapitata			
12.2. Persistence and degradability	·			
Hraniclean 04				
Persistence and degradability	Biodegradable.			
12.3. Bioaccumulative potential				
Hraniclean 04				
Partition coefficient n-octanol/water (Log Pow)	1.256			
Bioaccumulative potential	Bioaccumulation unlikely.			
12.4. Mobility in soil				
Hraniclean 04				
Ecology - soil	Adsorption in soil. Unlikely.			
12.5. Results of PBT and vPvB assessment				
Hraniclean 04				
This substance/mixture does not meet the PBT criteria	of REACH regulation, annex XIII			
This substance/mixture does not meet the vPvB criteria	a of REACH regulation, annex XIII			
12.6. Endocrine disrupting properties				
Adverse effects on the environment caused by endocrine disrupting properties	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.			
12.7. Other adverse effects				

No additional information available

SECTION 13: Disposal considerations 13.1. Waste treatment methods Regional legislation (waste) : Disposal must be done according to official regulations. Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Sewage disposal recommendations : Do not dispose of waste into sewer. Do not remove as household garbage. Product/Packaging disposal recommendations : Empty containers can be used in energy incinerator or stored in a landfill in accordance with the relevant legislation. May be reused following decontamination. HP Code : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure. HP4 - "Irritant - skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.



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SECTION 14: Transport information

ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN number or ID	number			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shippi	ng name	· · · ·	·	
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard	class(es)			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group		· · · ·	·	
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental ha	zards	· · · ·	·	
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

Overland transport Not applicable

Transport by sea Not applicable

Air transport Not applicable

Inland waterway transport Not applicable

Rail transport Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code Applicable on		
3(b)	Hraniclean 04 ; 1-butylpyrrolidin-2-one	

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

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PIC Regulation (Prior Informed Consent)

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Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content

: 0.99 kg/kg

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

United Kingdom

British National Regulations

:	Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives, in the valid wording. Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste, in the valid wording. UK Waste Regulations. UK REACH. GB CLP.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes				
Section	Changed item	Change	Comments	
	Revision date	Modified		
	Supersedes	Modified		
9.2	VOC content	Added		
15.1	VOC content	Added		

Abbreviations and acronyms:CLPClassification Labelling Packaging Regulation; Regulation (EC) No 1272/2008ATEAcute Toxicity EstimateDMELDerived Minimal Effect levelDNELDerived-No Effect LevelDPDDangerous Preparations Directive 1999/45/ECDSDDangerous Substances Directive 67/548/EECEC50Median effective concentration



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Abbreviations		Version:
LD50	Median lethal dose	
LC50	Median lethal concentration	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
SDS	Safety Data Sheet	
vPvB	Very Persistent and Very Bioaccumulative	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
LOAEL	Lowest Observed Adverse Effect Level	
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	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
EC-No.	European Community number	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
ED	Endocrine disrupting properties	

Data sources

: ECHA Guidance on the compilation of safety data sheets

Training advice

ECHA C&L Inventory database. Supplier's safety documents.Provide SDS to employees. Follow general rules on handling chemical substances and/or mixtures.

Full text of H- and EUH-statements:		
Acute Tox. 4 (Oral) Acute toxicity (oral), Category 4		
Eye Irrit. 2 Serious eye damage/eye irritation, Category 2		



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Full text of H- and EUH-statements:				
H302	Harmful if swallowed.			
H315	Causes skin irritation.			
H319	Causes serious eye irritation.			
Skin Irrit. 2	Skin corrosion/irritation, Category 2			

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Acute Tox. 4 (Oral)	H302	Calculation method	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.