Melclorite 70/20

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

1.1 Product identifier

Trade name — **Melclorite 70/20**

Registration number (REACH) — not relevant (mixture)

CAS number — not relevant (mixture)

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

Relevant identified uses

Oxidizing agent
Disinfectant
Bleaching agent

Uses advised against

Do not use for squirting or spraying
Do not use for products which come into direct contact with the skin

1.3 Details of the supplier of the safety data sheet

Melspring International B.V.
Arnhemsestraatweg 8
NL-6881 NG Velp
Netherlands

Telephone: ++31 (0) 26 - 38420 - 00
Telefax: ++31 (0) 26 - 38420 - 11

e-mail (competent person) — sdb@csb-online.de

Please do not use this e-mail adress to ask for the latest safety data sheet. For this purpose contact Melspring International B.V.

1.4 Emergency telephone number

As above or next toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard state-ment
2.14	oxidising solid	2	Ox. Sol. 2	H272
3.1O	acute toxicity (oral)	4	Acute Tox. 4	H302

Classification acc. to GHS				
Section	**Hazard class**	**Category**	**Hazard class and category**	**Hazard statement**
3.2	skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400

for full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.
Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word danger

Pictograms

GHS03, GHS05, GHS07, GHS09

Hazard statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P221 Take any precaution to avoid mixing with combustibles.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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 or doctor/physician.

Supplemental hazard information

EUH031 Contact with acids liberates toxic gas.

Hazardous ingredients for labelling Calcium hypochlorite

2.3 Other hazards

Warning! Do not use together with other products. May release dangerous gases (chlorine).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	M-Factors
Calcium hypochlorite	CAS No 7778-54-3 EC No 231-908-7 Index No 017-012-00-7	≥ 70	Ox. Sol. 2 / H272 Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Aquatic Acute 1 / H400		M-factor (acute) = 10.0
Calcium dihydroxide	CAS No 1305-62-0 EC No 215-137-3	1 – < 10	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335		
calcium chloride	CAS No 10043-52-4 EC No 233-140-8 Index No 017-013-00-2	1 – < 10	Eye Irrit. 2 / H319		

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.
Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
Take off immediately all contaminated clothing.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.
Get medical advice/attention.

Following skin contact

Rinse skin with water/shower.
Call a physician immediately. Causes poorly healing wounds.
Wash contaminated clothing before reuse.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth immediately and drink plenty of water.
Do NOT induce vomiting.
Get medical advice/attention.
Provide fresh air.

Notes for the doctor

none

4.2 Most important symptoms and effects, both acute and delayed

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

excess of water

Unsuitable extinguishing media

water spray, water mist, foam, alcohol resistant foam, dry extinguishing powder, fire extinguishing powder, BC-powder, ABC-powder, D-powder, sand, dry sand

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.
Oxidising property.
In contact with Water, Combustible materials: Danger of fire, Explosion risk.

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO2), hydrogen chloride (HCl), chlorine compound, toxic substances

5.3 Advice for firefighters

Keep containers cool with water spray.
In case of fire and/or explosion do not breathe fumes.
Co-ordinate firefighting measures to the fire surroundings.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

wear self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.
Ventilate affected area.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.
If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

take up mechanically

Advices on how to clean up a spill

Collect spillage.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.
Do not breathe dust.
Used in Fume hood.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.
Keep away from sources of ignition - No smoking.

Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

Handling of incompatible substances or mixtures

Keep away from

organic absorbing material, pulp/paper

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.
Keep valves and fittings free from oil and grease.

Incompatible substances or mixtures

Incompatible materials: see section 10.
Observe hints for combined storage.
Keep/store away from clothing/combustible materials.
Take any precaution to avoid mixing with combustibles.
Store away from acids.
Keep away from acids.
Store away from reducing agents.

Protect against external exposure, such as

heat, frost, direct light irradiation

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.
Store in a dry place. Store in a closed container.
Store in a well-ventilated place. Keep cool.
Keep locked up and out of the reach of children.
Protect against Impurities.

Ventilation requirements

Provision of sufficient ventilation.

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
EU	calcium dihydroxide	1305-62-0	r	IOELV		1		4	2017/164/EU
EU	chlorine	7782-50-5		IOELV			0.5	1.5	2017/164/EU
GB	calcium hydroxide	1305-62-0		WEL		5			EH40/2005

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
GB	chlorine	7782-50-5		WEL			0.5	1.5	EH40/2005

Notation

r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Calcium dihydroxide	1305-62-0	DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
Calcium dihydroxide	1305-62-0	DNEL	4 mg/m³	human, inhalatory	worker (industry)	acute - local effects
calcium chloride	10043-52-4	DNEL	5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
calcium chloride	10043-52-4	DNEL	10 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
Calcium dihydroxide	1305-62-0	PNEC	0.49 $^{mg}/_{l}$	freshwater
Calcium dihydroxide	1305-62-0	PNEC	0.32 $^{mg}/_{l}$	marine water
Calcium dihydroxide	1305-62-0	PNEC	3 $^{mg}/_{l}$	sewage treatment plant (STP)
Calcium dihydroxide	1305-62-0	PNEC	1,080 $^{mg}/_{kg}$	soil

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Material	Material thickness	Breakthrough times of the glove material
no information available	no information available	>480 minutes (permeation: level 6)

Wear suitable gloves.
Chemical protection gloves are suitable, which are tested according to EN 374.
Check leak-tightness/impermeability prior to use.
In the case of wanting to use the gloves again, clean them before taking off and air them well.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid
Form	tablets
Colour	white
Odour	chlorine-like
Odour threshold	these information are not available

Other safety parameters

pH (value)	not applicable
Melting point/freezing point	not applicable (spontaneous decomposition)
Initial boiling point and boiling range	not applicable
Flash point	not applicable
Evaporation rate	not applicable
Flammability (solid, gas)	non-combustible
Explosion limits of dust clouds	these information are not available

Vapour pressure	not applicable
Density	these information are not available
Vapour density	not applicable
Bulk density	~2 $^{g}/_{cm^3}$
Relative density	1 (water = 1)
Solubility(ies)	
Water solubility	200,000 $^{mg}/_{kg}$
Partition coefficient	
n-octanol/water (log KOW)	these information are not available
Auto-ignition temperature	not relevant (Solid matter)
Relative self-ignition temperature for solids	these information are not available
Decomposition temperature	these information are not available
Viscosity	
Kinematic viscosity	not relevant (solid matter)
Dynamic viscosity	not relevant (solid matter)
Explosive properties	not explosive
Oxidising properties	oxidiser

9.2 Other information

Self-Accelerating Decomposition Temperature: >=180°C.

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s).
Oxidising property.

If heated:

slow decomposition of the material

10.2 Chemical stability

See below "Conditions to avoid".
Spontaneous decomposition of the material.

10.3 Possibility of hazardous reactions

Risk of vigorous reaction, ignition and explosion in contact with combustible or flammable substances, Reducing agents.
Substances Contains Nitrogen: Explosive, Toxic substances.
Dangerous/dangerous reactions with: Acids.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Humidity.
High temperatures (>180°C)

10.5 Incompatible materials

water, acids, reducing agents, Combustible materials, amine, ammonia (NH3), metallic oxides containing heavy metals

Release of toxic materials with:

acids

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.
Oxygen.
Toxic substances: Chlorine, Hydrogen chloride (HCl).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic (dermal).
Harmful if swallowed.
Inhalation.
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Exposure route	Endpoint	Value	Species
oral	LD50	790 – 1,260 $^{mg}/_{kg}$	rat
dermal	LD50	>2,000 $^{mg}/_{kg}$	rat

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
Calcium dihydroxide	1305-62-0	oral	LD50	>2,000 $^{mg}/_{kg}$	rat	OECD Guideline 425	ECHA
Calcium dihydroxide	1305-62-0	dermal	LD50	>2,500 $^{mg}/_{kg}$	rabbit	OECD Guideline 402	ECHA
calcium chloride	10043-52-4	oral	LD50	2,120 $^{mg}/_{kg}$	rat	OECD Guideline 401	ECHA
calcium chloride	10043-52-4	dermal	LD50	>5,000 $^{mg}/_{kg}$	rabbit		ECHA

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.
Respiratory sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Very toxic to aquatic organisms.

Endpoint	Value	Species	Exposure time
LC50	0.15 $^{mg}/_{l}$	fish	96 h
LC50	0.22 $^{mg}/_{l}$	fish	96 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Exposure time
Calcium dihydroxide	1305-62-0	LC50	457 $^{mg}/_{l}$	three-spined stickleback (Gasterosteus aculeatus)		ECHA	96 h
Calcium dihydroxide	1305-62-0	EC50	49.1 $^{mg}/_{l}$	daphnia magna	OECD Guideline 202	ECHA	48 h
Calcium dihydroxide	1305-62-0	ErC50	184.6 $^{mg}/_{l}$	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	72 h
calcium chloride	10043-52-4	LC50	4,630 $^{mg}/_{l}$	fathead minnow (pimephales promelas)		ECHA	96 h
calcium chloride	10043-52-4	LC50	2,400 $^{mg}/_{l}$	daphnia magna	OECD Guideline 202	ECHA	48 h
calcium chloride	10043-52-4	EC50	2,900 $^{mg}/_{l}$	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	72 h
calcium chloride	10043-52-4	ErC50	>4,000 $^{mg}/_{l}$	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	72 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Exposure time
Calcium dihydroxide	1305-62-0	LC50	53.1 $^{mg}/_{l}$	Crustaceae (Crangon sp.)		ECHA	14 d
Calcium dihydroxide	1305-62-0	EC50	300.4 $^{mg}/_{l}$	microorganisms	OECD Guideline 209	ECHA	3 h
Calcium dihydroxide	1305-62-0	NOEC	32 $^{mg}/_{l}$	Crustaceae (Crangon sp.)		ECHA	14 d
calcium chloride	10043-52-4	LC50	920 $^{mg}/_{l}$	daphnia magna		ECHA	21 d
calcium chloride	10043-52-4	EC50	610 $^{mg}/_{l}$	daphnia magna		ECHA	21 d

12.2 Persistence and degradability

Biodegradation

The study does not need to be conducted, the relevant substances in the mixture are inorganic.

Persistence

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2 Keep away from drains, surface and ground water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.
Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	**UN number**	3487
14.2	**UN proper shipping name**	CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE
14.3	**Transport hazard class(es)**	
	Class	5.1
	Subsidiary risk(s)	8 (corrosive effects)
14.4	**Packing group**	III
14.5	**Environmental hazards**	hazardous to the aquatic environment
	Environmentally hazardous substance (aquatic environment)	Calcium hypochlorite

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	3487
Proper shipping name	UN3487, CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE, 5.1 (8), III, (E), environmentally hazardous
Class	5.1

Classification code	OC2
Packing group	III
Danger label(s)	5.1+8, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	314
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3.
Tunnel restriction code (TRC)	E
Hazard identification No	58
Emergency Action Code	1W

International Maritime Dangerous Goods Code (IMDG)

UN number	3487
Proper shipping name	UN3487, CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE, 5.1 (8), III, MARINE POL-LUTANT
Class	5.1
Subsidiary risk(s)	8
Marine pollutant	yes (P) (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	5.1+8, fish and tree

Special provisions (SP)	223, 314
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-H, S-Q
Stowage category	D

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	3487
Proper shipping name	UN3487, Calcium hypochlorite, hydrated mixture, corrosive, 5.1 (8), III
Class	5.1
Subsidiary risk(s)	8
Environmental hazards	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	5.1+8

Special provisions (SP)	A8, A136
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

List of substances subject to authorisation (REACH, Annex XIV)

none of the ingredients are listed

Seveso Directive

2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
P8	oxidising liquids and solids	50	200	55)

Notation

55) oxidising liquids, category 1, 2 or 3, or oxidising solids, category 1, 2 or 3

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

none of the ingredients are listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation 648/2004/EC on detergents

Labelling of contents

Wt%	Constituents
≥30%	chlorine-based bleaching agents

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

Chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Indication of changes: Section 2, 7, 8, 15

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/164/EU	Comission Directive establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)

Abbr.	Descriptions of used abbreviations
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
Ox. Sol.	Oxidising solid
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average

Abbr.	Descriptions of used abbreviations
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.