Safety Data Sheet

acc. to The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)

Melstar S

Version number: 6.0
Replaces version of: 2024-11-15 (5)

Revision: 2025-04-24
First version: 2020-09-24

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

1.1 Product identifier

Identification of the substance iron (II) sulfate (1:1) heptahydrate

Trade name **Melstar S**

EC number 231-753-5

Index No (GB CLP) 026-003-01-4

CAS number 7782-63-0

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

Relevant identified uses

Precipitant
Wastewater treatment
Chromate reduction in cement
Fertiliser

1.3 Details of the supplier of the safety data sheet

Olmix B.V.
Arnhemsestraatweg 8
6881 NG Velp
Netherlands

Telephone: ++31 (0) 26 - 38420 - 00
e-mail: info-nl@olmix.com

e-mail (competent person) sdb@csb-compliance.com

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

1.4 Emergency telephone number

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (acc. to GB CLP)

Classification				
Section	**Hazard class**	**Category**	**Hazard class and category**	**Hazard statement**
3.1O	acute toxicity (oral)	4	Acute Tox. 4	H302

Classification				
Section	**Hazard class**	**Category**	**Hazard class and category**	**Hazard statement**
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319

For full text of abbreviations: see SECTION 16

2.2 Label elements

Labelling (acc. to GB CLP)

Signal word warning

Pictograms

GHS07

Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Not listed.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance iron (II) sulfate (1:1) heptahydrate

Identifiers

CAS No	7782-63-0
EC No	231-753-5
Index No (GB CLP)	026-003-01-4

Impurities and additives

Name of substance	Identifier	Wt%
sulphuric acid	CAS No 7664-93-9 EC No 231-639-5	1 – < 3
nickel sulfate	CAS No 7786-81-4 EC No 232-104-9	< 0.01

concentration limit, M-factor, ATE

Specific Conc. Limits	M-Factors	ATE	Exposure route
Skin Irrit. 2; H315: C ≥ 25 %	-	500 $^{mg}/_{kg}$	oral

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 case of accident or if you feel unwell, seek medical advice immediately (show the label or safety data sheet where possible).

Following inhalation

Provide fresh air.
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.
Get medical advice/attention.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
If skin irritation occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water, holding the eyelids apart.
Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice/attention.

Following ingestion

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

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Nausea.
Irritant effects.
Vomiting.
Abdominal pain.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water, foam, alcohol resistant foam, fire extinguishing powder,
co-ordinate firefighting measures to the fire surroundings

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Hazardous combustion products

sulphur oxides (SO_x)

5.3 Advice for firefighters

Non-combustible.
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

chemical protection suit, 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.
Avoid contact with skin and eyes.
Do not breathe dust.
Control of dust.
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.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.
Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.
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

Do not get in eyes, on skin, or on clothing.
Do not breathe dust.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.
Removal of dust deposits.

Handling of incompatible substances or mixtures

Do not mix with alkali.

Measures to protect the environment

Avoid release to the environment.
Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

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

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

heat

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place.

Packaging compatibilities

Keep only in original container.
Metallic packaging: Titanium.
Plastic packaging: (PE: polyethylene, PP, PVC), Fiberglass Polyester.
Unsuitable materials: Metal (Aluminium, Copper, Iron)

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	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
EU	sulfuric acid	7664-93-9	IOELV	-	0.05	-	-	mist, t	2009/161/EU
EU	nickel compounds	7786-81-4	IOELV	-	0.1	-	-	Ni, i	2022/431/EU

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
GB	dust	-	WEL	-	10	-	-	i	EH40/2005
GB	dust	-	WEL	-	4	-	-	r	EH40/2005
GB	sulfuric acid	7664-93-9	WEL	-	0.05	-	-	t, mist	EH40/2005
GB	nickel, soluble compounds	7786-81-4	WEL	-	0.1	-	-	Ni, exNi(CO)4, H	EH40/2005

Notation

exNi(CO)4	except nickel carbonyl
H	absorbed through the skin
i	inhalable fraction
mist	as mists
Ni	calculated as Ni (nickel)
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)
t	thoracic fraction
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Human health values

Relevant DNELs and other threshold levels

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	2.8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
nickel sulfate	7786-81-4	DNEL	0.05 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
nickel sulfate	7786-81-4	DNEL	0.05 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
nickel sulfate	7786-81-4	DNEL	0.44	human, dermal	worker (industry)	chronic - local ef-

Relevant DNELs of components						
Name of sub-stance	**CAS No**	**End-point**	**Threshold level**	**Protection goal, route of exposure**	**Used in**	**Exposure time**
			µg/cm²			fects

Environmental values

Relevant PNECs of components				
Name of substance	**CAS No**	**Endpoint**	**Threshold level**	**Environmental com-partment**
nickel sulfate	7786-81-4	PNEC	6.1 µg/l	freshwater
nickel sulfate	7786-81-4	PNEC	9.55 µg/l	marine water
nickel sulfate	7786-81-4	PNEC	0.33 mg/l	sewage treatment plant (STP)
nickel sulfate	7786-81-4	PNEC	109 mg/kg	freshwater sediment
nickel sulfate	7786-81-4	PNEC	109 mg/kg	marine sediment
nickel sulfate	7786-81-4	PNEC	39.3 mg/kg	soil

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. (EN 166)

Hand protection

Protective gloves		
Material	**Material thickness**	**Breakthrough times of the glove material**
NBR: acrylonitrile-butadiene rubber	≥ 0,11 mm	>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.
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.

Body protection

Protective clothing for use against solid particulates.
(EN 13832, EN 340, EN 13034, EN 14605).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particulate filter device (EN 143).
Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, colour code: Yellow).
P2 (filters at least 94 % of airborne particles, colour code: White).

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

Physical state	solid (powder, crystalline)
Colour	light green
Odour	stinging acidic
Melting point/freezing point	64 – 90 °C
Boiling point or initial boiling point and boiling range	>300 °C
Flammability	non-combustible
Lower and upper explosion limit	not applicable (solid)
Flash point	not applicable
Auto-ignition temperature	not applicable (solid)
Decomposition temperature	>400 °C (anhydrous)
pH (value)	~2 (in aqueous solution: 100 $^{g}/_{l}$, 20 °C)
Viscosity	not relevant (solid)
Solubility(ies)	
Water solubility	400 $^{g}/_{l}$ at 20 °C 932 $^{g}/_{l}$ at 70 °C

Partition coefficient n-octanol/water (log value)	not applicable
Vapour pressure	not determined
Density and/or relative density	
Density	1.9 $^{g}/_{cm^3}$ at 20 °C
Relative vapour density	not relevant (solid)
Particle characteristics	no data available

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Store away from oxidizing agents.
High temperatures (>400°C)

10.5 Incompatible materials

oxidisers, base metals

10.6 Hazardous decomposition products

Sulphur oxides (SO_x).
Hydrogen.
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

Classification acc. to GHS

Acute toxicity

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

Exposure route	Endpoint	Value	Species	Method	Source
dermal	LD0	>2,000 $^{mg}/_{kg}$	rat	OECD Guideline 402	ECHA Chem

Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species	Method	Source
sulphuric acid	7664-93-9	oral	LD50	2,140 $^{mg}/_{kg}$	rat	-	ECHA
nickel sulfate	7786-81-4	oral	LD50	361.9 $^{mg}/_{kg}$	rat, female	OECD Guideline 425	ECHA
nickel sulfate	7786-81-4	inhalation: dust/mist	LC50	2.48 $^{mg}/_{l}$ /4h	rat	OECD Guideline 403	ECHA

Skin corrosion/irritation

Causes skin irritation.
(1272/2008/EC, Annex VI)

Serious eye damage/eye irritation

Causes serious eye irritation.
(1272/2008/EC, Annex VI)

Respiratory or skin sensitisation

Skin sensitisation

Shall not be classified as a skin sensitiser.
(ECHA, EU method B.42, OECD Guideline 429, EPA OPPTS 870.2600)

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.

11.2 Information on other hazards

Endocrine disrupting properties

Not listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

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

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
sulphuric acid	7664-93-9	EC50	48 h	>100 $^{mg}/_{l}$	daphnia magna	OECD Guideline	ECHA

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
						202	
sulphuric acid	7664-93-9	ErC50	72 h	>100 mg/l	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA
sulphuric acid	7664-93-9	LC50	96 h	>16 – <28 mg/l	bluegill (Lepomis macrochirus)	-	ECHA
nickel sulfate	7786-81-4	LC50	96 h	15.3 mg/l	rainbow trout (Oncorhynchus mykiss)	-	ECHA Chem
nickel sulfate	7786-81-4	LC50	48 h	13 µg/l	water flea (Daphnia)	-	ECHA Chem
nickel sulfate	7786-81-4	EC50	48 h	685.8 µg/l	Dendraster excentricus	-	ECHA
nickel sulfate	7786-81-4	EC50	72 h	40.7 µg/l	Alge (Pediastrum duplex)	OECD Guideline 201	ECHA Chem

Aquatic toxicity (chronic)

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

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source	Notes
nickel sulfate	7786-81-4	LC50	21 d	>37.4 – ≤144 µg/l	daphnia magna	OECD Guideline 211	ECHA Chem	read-across
nickel sulfate	7786-81-4	EC50	21 d	≥23.6 – ≤108 µg/l	daphnia magna	OECD Guideline 211	ECHA Chem	read-across
nickel sulfate	7786-81-4	EC50	30 min	33 mg/l	activated sludge	DIN EN ISO 8192	ECHA	-
nickel sulfate	7786-81-4	EbC50	30 d	14.8 µg/l	Lymnaea stagnalis	-	ECHA	read-across
nickel sulfate	7786-81-4	ErC50	40 d	8,363 µg/l	topsmelt silverside (Atherinops affinis)	-	ECHA	read-across, CAS 37211-05-5
nickel sulfate	7786-81-4	NOEC	32 d	35 µg/l	rainbow	-	ECHA	read-

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source	Notes
					trout (Oncorhynchus mykiss)		Chem	across
nickel sulfate	7786-81-4	NOEC	72 h	3.5 µg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across
nickel sulfate	7786-81-4	NOEC	7 d	5.3 – 15.3 µg/l	water flea (Daphnia)	-	ECHA Chem	read-across
nickel sulfate	7786-81-4	LOEC	72 h	6.2 µg/l	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA	read-across
nickel sulfate	7786-81-4	LOEC	32 d	35 µg/l	rainbow trout (Oncorhynchus mykiss)	-	ECHA Chem	read-across
nickel sulfate	7786-81-4	LOEC	21 d	≥6.13 – ≤93.8 µg/l	daphnia magna	-	ECHA Chem	read-across
nickel sulfate	7786-81-4	growth rate (ErCx) 10%	40 d	3,599 µg/l	topsmelt silverside (Atherinops affinis)	-	ECHA	read-across
nickel sulfate	7786-81-4	growth rate (ErCx) 10%	7 d	>2.8 – < 53.6 µg/l	water flea (Daphnia)	-	ECHA Chem	read-across

12.2 Persistence and degradability

Biodegradation

The study does not need to be conducted because the substance is inorganic.

Persistence

The study does not need to be conducted because the substance is inorganic.

12.3 Bioaccumulative potential

n-octanol/water (log KOW) not relevant
(inorganic)

Bioaccumulative potential of components

Name of substance	CAS No	BCF	Log KOW
sulphuric acid	7664-93-9	-	-1 (25 °C)
nickel sulfate	7786-81-4	45	-

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 1.

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

Completely emptied packages can be recycled.
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**	not subject to transport regulations
14.2	**UN proper shipping name**	-
14.3	**Transport hazard class(es)**	-
14.4	**Packing group**	-
14.5	**Environmental hazards**	-
14.6	**Special precautions for user**	-
14.7	**Maritime transport in bulk according to IMO instruments**	-

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)

Seveso Directive

Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

Not listed.

Regulation on the marketing and use of explosives precursors

Not listed.

Regulation on drug precursors

Not listed.

Regulation on substances that deplete the ozone layer (ODS)

Not listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

Not listed.

Regulation on persistent organic pollutants (POP)

Not listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

Not listed

Restrictions according to GB REACH, Annex 17

Not listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
8.1	-	Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1	-	Relevant PNECs of components: change in the listing (table)
8.2	Body protection:	Body protection:

Section	Former entry (text/value)	Actual entry (text/value)
	Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 14605).	Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 13034, EN 14605).
14.1	UN number: not assigned	UN number: not subject to transport regulations

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2009/161/EU	Commission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
2022/431/EU	Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
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
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association

Abbr.	Descriptions of used abbreviations
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
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
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
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
NOEC	No Observed Effect Concentration
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)
STEL	Short-term exposure limit
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended).
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended).
GB mandatory classification and labelling.
Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

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.