SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Hu-Man Z50

Version	Revision Date:	SDS Number:	Date of last issue: -
1.3	01.11.2022	50001173	Date of first issue: 20.07.2018

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

1.1 Product identifier

Product name Hu-Man Z50

Other means of identification

Product code 50001173

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

Use of the Substance/Mixture : A fertilizer with micronutrients for use in agriculture and horticulture

Recommended restrictions on use : Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

Supplier Address

FMC Agro Limited
Rectors Lane, Pentre
Flintshire
CH5 2DH
United Kingdom

Telephone: + 44 1244 537370
E-mail address: SDS-Info@fmc.com (E-Mail General Information)

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:
England and Wales: 44-870-8200418 (CHEMTREC)

Medical emergency:
England and Wales: 111
Scotland: 84 54 24 2424

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

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

Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal word : Danger

Hazard statements :
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P260 Do not breathe mist or vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Disposal:

P501 Dispose of contents and/or container in accordance with hazardous waste regulations.

Hazardous components which must be listed on the label:
Manganese sulfate, monohydrate

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Manganese sulfate, monohydrate	10034-96-5	Eye Irrit. 1; H318 STOT RE 2; H373 Aquatic Chronic 2; H411	>= 10 - < 25
Zinc sulphate, monohydrate	7446-19-7	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 5 - <= 10
ethane-1,2-diol	107-21-1 203-473-3 603-027-00-1	Acute Tox. 4; H302 STOT RE 2; H373 (Kidney)	>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.

Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes serious eye damage.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
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 : Use personal protective equipment.

Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.
For disposal considerations see section 13.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralize with chalk, alkali solution or ammonia.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : Do not store near acids.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Fertilizers

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Manganese sulfate, monohydrate	10034-96-5	TWA (Inhalable)	0.2 mg/m3 (Manganese)	GB EH40
		TWA (Respirable fraction)	0.05 mg/m3 (Manganese)	GB EH40
		TWA (inhalable fraction)	0.2 mg/m3 (Manganese)	2017/164/EU
Further information	Indicative			
		TWA (Respirable fraction)	0.05 mg/m3 (Manganese)	2017/164/EU
Further information	Indicative			
ethane-1,2-diol	107-21-1	TWA (Vapour)	20 ppm 52 mg/m3	GB EH40
Further information	Can be absorbed through the 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 the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL (Vapour)	40 ppm 104 mg/m3	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	40 ppm 104 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	20 ppm 52 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection		
Material	:	Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	No personal respiratory protective equipment normally required.
Protective measures	:	Wear suitable protective equipment. Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions. When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	brown
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	2.0 - 3.0
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1.36 - 1.38

Solubility(ies)
Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : Non-oxidizing

9.2 Other information

Particle size : No data available

Particle Size Distribution : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Heat

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

Strong bases

10.6 Hazardous decomposition products

Sulphur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate (Rat): > 6,000 mg/kg
Method: Calculation method

Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

Manganese sulfate, monohydrate:

Acute oral toxicity : LD50 (Rat, male and female): 2,150 mg/kg

Acute inhalation toxicity : LC0 (Rat, male and female): > 4.45 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: no mortality

Zinc sulphate, monohydrate:

Acute oral toxicity : LD50 (Rat, male): 1,710 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Symptoms: irritating
Remarks: no mortality

ethane-1,2-diol:

Acute inhalation toxicity : LC0 (Rat, male and female): > 2.5 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist
Remarks: no mortality

Acute dermal toxicity : LD50 (Mouse, male and female): > 3,500 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : No data available

Components:

Manganese sulfate, monohydrate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Zinc sulphate, monohydrate:

Species	:	Mouse
Result	:	slight irritation
Remarks	:	Based on data from similar materials

Species	:	Rabbit
Result	:	slight irritation
Remarks	:	Based on data from similar materials

Species	:	Guinea pig
Result	:	slight irritation
Remarks	:	Based on data from similar materials

ethane-1,2-diol:

Species	:	Rabbit
Result	:	No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks	:	May cause irreversible eye damage.

Components:

Manganese sulfate, monohydrate:

Species	:	Rabbit
Exposure time	:	72 h
Method	:	OECD Test Guideline 405
Result	:	irritating

Zinc sulphate, monohydrate:

Result	:	Irreversible effects on the eye

ethane-1,2-diol:

Species	:	Rabbit
Result	:	No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Remarks : No data available

Components:

Manganese sulfate, monohydrate:

Test Type : Patch test
Exposure routes : Dermal
Species : Humans
Result : Not a skin sensitizer.

Zinc sulphate, monohydrate:

Exposure routes : Skin contact
Species : Mouse
Result : Not a skin sensitizer.

ethane-1,2-diol:

Test Type : Maximisation Test
Species : Guinea pig
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Components:

Manganese sulfate, monohydrate:

Genotoxicity in vitro : Test Type: gene mutation test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (female)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Zinc sulphate, monohydrate:

Genotoxicity in vitro : Test Type: gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Result: negative

ethane-1,2-diol:

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: OPPTS 870.5100
Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Rat
Application Route: Oral
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Manganese sulfate, monohydrate:

Species : Mouse, male and female
Application Route : Ingestion
Result : negative

Zinc sulphate, monohydrate:

Remarks : No human information is available.

ethane-1,2-diol:

Species : Mouse
Application Route : Oral
Exposure time : 24 month(s)
Result : negative

Reproductive toxicity

Not classified based on available information.

Components:

Manganese sulfate, monohydrate:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Method: OECD Test Guideline 416
Result: negative

Effects on foetal development : Species: Rat
Application Route: Inhalation
Method: OECD Test Guideline 414
Result: negative

Zinc sulphate, monohydrate:

Effects on fertility	:	Remarks: No data available
Effects on foetal development	:	Remarks: No data available

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:

Zinc sulphate, monohydrate:

Remarks	:	No data available

ethane-1,2-diol:

Exposure routes	:	Oral
Target Organs	:	Kidney
Assessment	:	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Components:

Manganese sulfate, monohydrate:

Species	:	Rat, male and female
NOAEL	:	2000 mg/kg
Application Route	:	Ingestion
Exposure time	:	13 w

ethane-1,2-diol:

Species	:	Rat
NOAEL	:	150 mg/kg
Application Route	:	Oral
Exposure time	:	12 months

Species	:	Dog
NOAEL	:	> 2,200 - < 4,400 mg/kg
Application Route	:	Dermal
Exposure time	:	4 weeks
Method	:	OECD Test Guideline 410

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

Manganese sulfate, monohydrate:

Toxicity to fish	:	LC50 (Salmo trutta (brown trout)): 49.9 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Crustaceans): 13.7 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 61 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	:	NOEC: 4.496 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.020 mg/l Exposure time: 14 d Species: Crassostrea virginica Test Type: static test

Zinc sulphate, monohydrate:

Toxicity to fish	:	LC50 (Fish): 0.112 mg/l Exposure time: 96 h LC50 (Oncorhynchus mykiss (rainbow trout)): 0.169 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.131 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (microalgae)): 0.0052 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity)	:	EC10:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.0056 mg/l Exposure time: 10 d

ethane-1,2-diol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 72,860 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	IC50 (Pseudokirchneriella subcapitata (green algae)): 10,940 mg/l Exposure time: 96 h
Toxicity to microorganisms	:	(activated sludge): > 1,995 mg/l Exposure time: 30 min Method: ISO 8192
Toxicity to fish (Chronic toxicity)	:	1,500 mg/l Exposure time: 28 d Species: Menidia peninsulae (tidewater silverside)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	33,911 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Components:

Zinc sulphate, monohydrate:

Biodegradability	:	Remarks: No data available

ethane-1,2-diol:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 90 - 100 % Exposure time: 10 d Method: OECD Test Guideline 301A

12.3 Bioaccumulative potential

Components:

Zinc sulphate, monohydrate:

Bioaccumulation	:	Remarks: Not inherently biodegradable.

Partition coefficient: n-octanol/water : Remarks: Not applicable

ethane-1,2-diol:

Partition coefficient: n-octanol/water : log Pow: -1.36

12.4 Mobility in soil

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 information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADN : UN 3082

ADR : UN 3082

RID : UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(zinc sulfate, Manganese Sulfate)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(zinc sulfate, Manganese Sulfate)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(zinc sulfate, Manganese Sulfate)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(zinc sulfate, Manganese Sulfate)

IATA : Environmentally hazardous substance, liquid, n.o.s.
(zinc sulfate, Manganese Sulfate)

14.3 Transport hazard class(es)

ADN : 9

ADR : 9

RID : 9

IMDG : 9

IATA : 9

14.4 Packing group

ADN

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

ADR

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

RID

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

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

IATA (Cargo)

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

IATA (Passenger)

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

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

IATA (Passenger)
Environmentally hazardous : yes

IATA (Cargo)
Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH)	E2	ENVIRONMENTAL HAZARDS

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1	ENVIRONMENTAL HAZARDS

The components of this product are reported in the following inventories:

TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	On the inventory, or in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H318	:	Causes serious eye damage.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
STOT RE	:	Specific target organ toxicity - repeated exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2017/164/EU / TWA	:	Limit Value - eight hours
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;

NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Classification of the mixture:		**Classification procedure:**
Eye Dam. 1	H318	Based on product data or assessment
STOT RE 2	H373	Calculation method
Aquatic Chronic 1	H410	Calculation method

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