

SAFETY DATA SHEET

Rheus

This safety data sheet complies with the requirements of:
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS # : 10220-1-A
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Format: EU
Version 1.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) 10220-1-A

Product Name Rheus

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

Recommended Use: A wetting agent for use in agriculture and horticulture

Restrictions on use Use as recommended by the label.

1.3. Details of the supplier of the safety data sheet

Manufacturer FMC Agro Limited
Rectors Lane
Pentre
Flintshire
CH5 2DH
United Kingdom
Tel: + 44 1244 537370
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point Tel: +44 1244 537370
E-mail address E-mail: fmc.agro.uk@fmc.com

1.4. Emergency telephone number

Emergency telephone Tel: +44 1244 537370 (Office hours only)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Chronic aquatic toxicity	Category 2

2.2. Label elements

Hazard pictograms



Signal Word
WARNING

Hazard Statements

H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H312 - Harmful in contact with skin
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P273 - Avoid release to the environment
P280 - Wear protective gloves and eye/face protection
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

2.3. Other hazards

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Polyether modified, trisiloxane	-	134180-76-0	>60	Acute Tox.(Inhalation) 4 (H312) Acute Tox.(Dermal) 4 (332) Eye Irrit. 2 (H319) Aquatic Chronic 2 (H411)	No data available

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Immediately remove all stained or splashed clothing that is not adhering to the skin. Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.
Inhalation	Remove person from exposure ensuring one's own safety while doing so. Consult a physician.
Ingestion	Quickly wipe material from the mouth and rinse mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Skin contact: There may be irritation and redness at the site of contact. Eye contact: There may be irritation and redness. The eyes may water profusely.
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Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.
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Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Alcohol or polymer foam, Dry chemical, CO₂ or water spray. Soft stream or water fog only if necessary.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Toxic fumes may be released in fire situations.

Hazardous Combustion Products

Carbon monoxide, Carbon dioxide (CO₂), Silicon dioxide.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

For personal protection see section 8. Isolate and post spill area. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Stop leak if you can do it without risk. Do not stay in the gas cloud, stay upwind of the source.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up

For waste disposal, see indications in Section 13.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling

Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Prevent the formation of vapours, mist and aerosols.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Protect from frost, heat and sunlight. Store above 5°C. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Specific Use(s)

A wetting agent for use in agriculture and horticulture.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering measures Ensure adequate ventilation, especially in confined areas. The floor of the storage room must be impermeable to prevent the escape of liquids.

Personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Tightly fitting safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

Hand Protection Protective gloves. PVC gloves. Impervious butyl rubber gloves. Nitrile rubber. Butyl rubber. Break through time. > 8 hrs.

Skin and Body Protection Impervious clothing.

Respiratory Protection Respirator with combination filter for vapour/particulate. Type A/P2.

Environmental exposure controls Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Appearance	Liquid
Odour	Characteristic
Colour	Light yellow
Odour threshold	No information available
pH	6.0 - 8.0 (40 g/L soln)
Melting point/freezing point	< 0 °C
Boiling point/boiling range	> 200 °C
Flash point	> 140 °C
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapour pressure	No information available
Vapour density	No information available
Specific gravity	1.01
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	40 - 90 mPa s @ 25°C
Explosive properties	No information available
Oxidising properties	Non-oxidizing (by EC criteria)

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	~1.01 g/cm ³ (25°C)
Bulk density	No information available
K _{st}	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical stability

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Hazardous polymerisation

Hazardous polymerization does not occur.

Hazardous reactions

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

May emit toxic fumes under fire conditions. See Section 5.2 for more information.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity****Product Information**

LD50 Oral 3200 mg/kg
LD50 Dermal >2000 (rat), 1550 (rabbit) mg/kg
Inhalation LC50 1.08 mg/l 4 hr (rat)

Chemical name	LD50 Oral	LD50 Dermal	Inhalation LC50
Polyether modified, trisiloxane	3200 mg/kg (rat)	>2000 mg/kg (rat) 1550 mg/kg (rabbit)	1.08 mg/L (4hr) (rat)

Skin corrosion/irritation Slightly irritating.
Serious eye damage/eye irritation Severely irritating.
Sensitisation Non-sensitizing
Mutagenicity No information available.
Carcinogenicity No information available.

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Symptoms Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity**12.2. Persistence and degradability**

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Mobility in soil
Soluble in water.

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Toxic to aquatic organisms

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods**Waste from residues / unused products**

Transfer to a suitable container and arrange for collection by specialised disposal company. Alternatively, the product can be incinerated, in accordance with local regulations. The diluted product and washings should be sent to a water treatment facility. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not discharge to sewer systems.

Contaminated Packaging

Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Containers must be disposed of in accordance with local regulations. Refer to the product label for container disposal instructions.

OTHER INFORMATION

NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (polyether modified polysiloxane)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Marine Pollutant	Polyether modified polysiloxane
Environmental Hazard	Yes
14.6 Special Provisions	None
EmS	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	This product is not transported in bulk containers.

RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (polyether modified polysiloxane)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	None

ADR/RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (polyether modified polysiloxane)
14.3 Hazard class	9
14.4 Packing Group	III

14.5 Environmental Hazard Yes
14.6 Special Provisions None
Tunnel restriction code E

ICAO/IATA

14.1 UN/ID no UN3082
14.2 Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s. (polyether modified polysiloxane)
14.3 Hazard class 9
14.4 Packing Group III
14.5 Environmental Hazard Yes
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

European Union**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Polyether modified, trisiloxane 134180-76-0	X				X	X	X	

15.2. Chemical safety assessment

A Chemical Safety Assessment has not yet been completed for this substance

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3

H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H319 - Causes serious eye irritation
H411 - Toxic to aquatic life with long lasting effects

Legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: CAS (Chemical Abstracts Service)
Ceiling: Maximum limit value:

DNEL: Derived No Effect Level (DNEL)
EINECS: EINECS (European Inventory of Existing Chemical Substances)
GHS: Globally Harmonised System (GHS)
IATA: International Air Transport Association (IATA)
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods (IMDG)
LC50: LC50 (lethal concentration)
LD50: LD50 (lethal dose)
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail
STEL: Short term exposure limit
SVHC: SVHC: Substances of Very High Concern for Authorisation:

TWA: time weighted average
vPvB: very Persistent and very Bioaccumulative

Revision date: 2018-07-20

Reason for revision: Initial Release.

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared By

FMC Corporation

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End of Safety Data Sheet