

XENUM - R-Flush Radiator Cleaner

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

1.1 - Product identifier

Trade name/designation XENUM - R-Flush Radiator Cleaner
Chemical name
Product-type Mixture

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

Relevant identified uses - Additive
Uses advised against - Do not use for medical-clinical purposes.
- Do not use for products which come into contact with the food stuffs.

1.3 - Details of the supplier of the safety data sheet

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Vluchtenburgstraat 9
2630 Aartselaar Belgium
Telephone : +32(0)3 846 48 03
XENUM HQ: +32(0)3 846 48 03 info@xenum.com

1.4 - Emergency telephone number

BelgiumPoison Centre. Tel: (+32) 070 245 245 or (+32) 02 264 96 30

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

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

Skin Irrit. 2	Skin corrosion/irritation, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation - Category 2A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2

2.2 - Label elements

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

Contains: ethanediol, ethylene glycol (CAS No.: 107-21-1)

Signal word : Warning

Hazard pictograms



Hazard statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
Precautionary statements	

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P102	Keep out of reach of children
P260	Do not breathe dust, vapours, spray
P280	Wear eye protection, Face protection shield
P302+P352	IF ON SKIN: Wash with plenty of with 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
P362+P364	Take off contaminated clothing and wash it before reuse
EUH-phrases	: None

2.3 - Other hazards

SECTION 3: Composition / information on ingredients

3.1 - Substances

Not applicable

3.2 - Mixtures

Chemical name	No	%	Class	Spec. concentrations
ethanediol, ethylene glycol	CAS No. : 107-21-1 Index No. : 603-027-00-1 EC No. : 203-473-3 REACH No. : 01-2119456816-28	5 - 15	Acute Tox. 4 Oral - H302 STOT RE 2 - H373	
potassium hydroxide, caustic potash	CAS No. : 1310-58-3 Index No. : 019-002-00-8 EC No. : 215-181-3 REACH No. : 01-2119487136-33	0 - 5	Acute Tox. 4 Oral - H302 Met. Corr. 1 - H290 Skin Corr. 1A - H314	Skin Corr. 1A - H314 : 5>=%<=100 Skin Corr. 1B - H314 : 2>=%<5 Skin Irrit. 2 - H315 : 0,5>=%<2 Eye Irrit. 2 - H319 : 0,5>=%<2
Oleylamine, ethoxylated	CAS No. : 26635-93-8 Index No. : EC No. : 500-048-7	0 - 5	Acute Tox. 4 Oral - H302 Aquatic Acute 1 - H400 Eye Dam. 1 - H318 Skin Irrit. 2 - H315	

SECTION 4: First aid measures

4.1 - Description of first aid measures

<u>Following inhalation</u>	- No special measures are necessary. - Provide fresh air.
<u>Following skin contact</u>	- After contact with skin, wash immediately with plenty of water and soap. - Remove contaminated, saturated clothing immediately. - In case of skin reactions, consult a physician.
<u>After eye contact</u>	- In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
<u>After ingestion</u>	- If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. - Seek medical advice immediately. - Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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- Rinse mouth thoroughly with water.
- Medical treatment necessary.
- When in doubt or if symptoms are observed, get medical advice.

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

Symptoms and effects - Following inhalation - No information available.

Symptoms and effects - Following skin contact - No information available.

Symptoms and effects - After eye contact - Serious eye damage/eye irritation

Symptoms and effects - After ingestion - No information available.

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

- Treat symptomatically. Antidotal dispensation.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

Suitable extinguishing media

- ABC-powder
- Carbon dioxide (CO₂)
- Foam
- Extinguishing powder

Unsuitable extinguishing media - High power water jet

5.2 - Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture - No information available.

5.3 - Advice for firefighters

- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
- Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedures

For non-emergency personnel - Use personal protection equipment.

For emergency responders - No information available.

6.2 - Environmental precautions

- Do not allow to enter into surface water or drains.
- Ensure waste is collected and contained.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment - Soak up inert absorbent and dispose as waste requiring special attention.

Methods and material for cleaning up - Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

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- Clear contaminated areas thoroughly.
- Take up carefully when dry.
- Clean contaminated articles and floor according to the environmental legislation.

Inappropriate techniques

- No information available.

6.4 - Reference to other sections

- Disposal: see section 13
- Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 - Precautions for safe handling

Recommendation

- Avoid: Eye contact
- It is recommended to design all work processes always so that the following is excluded: Eye contact
- It is recommended to design all work processes always so that the following is excluded: Skin contact
- After use replace the closing cap immediately.
- Avoid exposure - obtain special instructions before use.

Advices on general occupational hygiene

- Wash contaminated clothing prior to re-use.
- When using do not eat, drink, smoke, sniff.
- Thorough skin-cleansing after handling the product.
- Wash hands before breaks and after work.

7.2 - Conditions for safe storage, including any incompatibilities

- Store in a place accessible by authorized persons only.
- Keep away from: Food and feedingstuffs
- Only use containers specifically approved for the substance/product.
- Storage class Non-combustible substances of acute toxicity, category 1 and 2 / very toxic substances (liquid)
- Do not store together with: Food and feedingstuffs

7.3 - Specific end use(s)

- No information available.

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

ethanediol, ethylene glycol (107-21-1)

IOELV TWA mg/m3 (UE)	52 mg/m3
IOELV TWA ppm (UE)	20 ppm
IOELV STEL mg/m3 (UE)	104 mg/m3
IOELV STEL ppm (UE)	40 ppm

8.2 - Exposure controls

Appropriate engineering controls

- No information available.

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Individual protection measures, such as personal protective equipment - Eye protection



- Protective gloves



- Recommended thickness of the material: ≥ 0.5 mm

- Required properties: Type 3
Liquid-tight

- Suitable material: NBR (Nitrile rubber)

- Suitable material: NR (natural rubber, natural latex)

- Suitable material: PE (polyethylene)

- Suitable material: PVC (Polyvinyl chloride)

- Transmission $8\text{mg}/\text{cm}^2$ for 8h (water vapour $5\text{mg}/\text{cm}^2/\text{h}$)

- Suitable protective clothing: Protective apron



Environmental exposure controls

- Further information: see technical data sheet.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

<u>Physical state</u>	Liquid	<u>Appearance</u>	Liquid
<u>Colour</u>	light yellow	<u>Odour</u>	characteristic
<u>Odour threshold</u>	No data available		

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pH	11
Melting point	No data available
Freezing point	No data available
Boiling point	100 °C
Flash point	No data available
Evaporation rate	No data available
flammability	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	2332 Pa
Vapour density	No data available
Relative density	No data available
Density	1,05 kg/l
Solubility (Water)	very soluble
Solubility (Ethanol)	very soluble
Solubility (Acetone)	No data available
Solubility (Organic solvents)	No data available
Log KOC	No data available
Auto-ignition temperature	230 °C
Decomposition temperature	No data available
Kinematic viscosity	1 mm ² /s
Dynamic viscosity	0,001 Pa.s

9.2 - Other information

VOC content	0 %
Minimum ignition energy	No data available
Conductivity	No data available

SECTION 10: Stability and reactivity

10.1 - Reactivity

- This material is considered to be non-reactive under normal use conditions.

10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 - Possibility of hazardous reactions

- No hazardous reaction when handled and stored according to provisions.

10.4 - Conditions to avoid

- No information available.

10.5 - Incompatible materials

- No information available.

10.6 - Hazardous decomposition products

- Does not decompose when used for intended uses.

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SECTION 11: Toxicological information

11.1 - Information on toxicological effects

Acute toxicity - Not classified

LD50 oral (rat)	No data available
LD50 dermal (rat)	No data available
LD50 dermal (rabbit)	No data available
LC50 inhalation (rat)	No data available
LC50 inhalation dusts and mists (rat)	No data available
LC50 inhalation vapours (rat)	No data available

- No information available.

ethanediol, ethylene glycol (107-21-1)

LD50 oral (rat)	4700 mg/kg
LD50 dermal (rat)	> 3500 mg/kg
LC50 inhalation vapours (rat)	> 2,5 mg/l

potassium hydroxide, caustic potash (1310-58-3)

LD50 oral (rat)	2043 mg/kg
LD50 dermal (rat)	< 2000 mg/kg

Skin corrosion/irritation - Skin corrosion/irritation, Category 2 - Causes skin irritation

- Corrosive.

Serious eye damage/eye irritation - Serious eye damage/eye irritation - Category 2A - Causes serious eye irritation

- Risk of serious damage to eyes.
- Causes serious eye irritation.
- Corrosive.

Respiratory or skin sensitisation - Not classified

Germ cell mutagenicity - Not classified

Carcinogenicity - Not classified

Reproductive toxicity - Not classified

STOT-single exposure - Not classified

- data lacking

STOT-repeated exposure - Specific target organ toxicity — Repeated exposure, Category 2 - May cause damage to organs through prolonged or repeated exposure

Aspiration hazard - Not classified

SECTION 12: Ecological information

12.1 - Toxicity

EC50 48 hr crustacea	No data available
LC50 96 hr fish	No data available

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ErC50 algae	No data available
ErC50 other aquatic plants	No data available
NOEC chronic fish	No data available
NOEC chronic crustacea	No data available
NOEC chronic algae	No data available
NOEC chronic other aquatic plants	No data available

ethanediol, ethylene glycol (107-21-1)

LC50 96 hr fish	72860 mg/l
NOEC chronic fish	15380 mg/l

potassium hydroxide, caustic potash (1310-58-3)

EC50 48 hr crustacea	106 mg/l
LC50 96 hr fish	> 100 mg/l
ErC50 other aquatic plants	49,3 mg/l

- The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

12.2 - Persistence and degradability

Biochemical oxygen demand (BOD)	No data available
Chemical oxygen demand (COD)	No data available
% of biodegradation in 28 days	No data available

- No information available.

12.3 - Bioaccumulative potential

Bioconcentration factor (BCF)	No data available
Log KOC	No data available

- No indication of bioaccumulation potential.

12.4 - Mobility in soil

- No information available.

12.5 - Results of PBT and vPvB assessment

12.6 - Other adverse effects

- No information available.

SECTION 13: Disposal considerations

13.1 - Waste treatment methods

Waste treatment methods - Dispose of waste according to applicable legislation.

Sewage disposal - No information available.

Special precautions for waste treatment

- Waste for disposal is to be classified and labelled.
- Do not mix with other wastes.
- Consult the appropriate local waste disposal expert about waste disposal.
- Waste requires special monitoring.
- Collect the waste separately.

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- Send to a hazardous waste incinerator facility under observation of official regulations.
- The waste is to be kept separate from other types of waste until its disposal.

Community or national or regional provisions - No information available.

SECTION 14: Transport information

14.1 - UN number

Not applicable

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 - Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

Substances REACH candidates None

Substances Annex XIV None

Substances Annex XVII None

VOC content 0 %

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product - No information available.

SECTION 16: Other information

SDS versions

Version	Issue date	Description of the amendments
1,02	14/06/2018	
1,01	26/09/2016	
1	19/05/2016	Changement of article number

Texts of the regulatory sentences

Acute Tox. 4 Oral	Acute toxicity (oral) - Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Aquatic Acute 1
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation - Category 2A
H302	Harmful if swallowed

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H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
Met. Corr. 1	Corrosive to metals - Category 1
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2

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