

**Safety Data Sheet**  
in accordance with Regulation (EC)  
No. 1907/2006

Zolleks Avto d.o.o.

**ZOLLEX RADIATOR FLUSH**Date of issue: 30/09/2014  
Version: 1**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING****1.1 Product identifier**

Trade name	ZOLLEX RADIATOR FLUSH
Substance/mixture	Mixture

**1.2 Relevant identified uses of the substance/mixture and inadvisable uses**

Identified uses: Cooling system cleaner

**1.3 Details of the supplier of the Safety Data Sheet****Supplier:**

Zolleks Avto d.o.o.  
Kidričeva cesta 97  
SI-4220 Škofja Loka

Telephone: +386 4 502 07 10  
Telephone: +386 4 502 07 19

**E-mail address of the person responsible for drawing up the Safety Data Sheet:**  
[info@zolleks.si](mailto:info@zolleks.si)

**1.4 Emergency telephone number**

Emergency call – Slovenia: 112

**2. HAZARD IDENTIFICATION****2.1 Classification of the substance/mixture****Classification in accordance with Directive 67/548/EEC or 1999/45/EC**

Xi; R36/37/38

For the full text of the R-phrases mentioned in this Section, see Section 16.

**Classification in accordance with Regulation 1272/2008**

STOT SE 3; H335  
Skin Sens. 1; H317  
Eye Irrit. 2; H319

For the full text of H-statements mentioned in this Section, see Section 16.

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Version: 1**2.2 Label elements****Classification in accordance with Regulation 1272/2008**

Pictogram:



Signal word: ATTENTION

Hazard statements:

H335 May cause respiratory irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

Contains: methenamine, ammonia... %

Precautionary statements:

P102 Keep out of reach of children.  
P261 Avoid breathing vapours.  
P280 Wear protective gloves and eye protection/face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P501 Dispose of contents/container in accordance with local/national regulations.

Detergents Regulation: Contains: less than 5% EDTA and its salts

**2.3 Other hazards**

None.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures**

Chemical Name	CAS ES Index	REACH Reg. No.	Content in %	Classification (Directive No. 67/548)	Classification (Regulation No. 1272/2008)
Methenamine	100-97-0 202-905-8 612-101-00-2		3-5%	F; R11 R43	Flam. Sol. 2; H228 Skin Sens. 1; H317
Citric acid, anhydrous	77-92-9 - -		3-5%	Xi; R36	Eye. Irrit.2; H319
Ammonium biphosphate	7722-76-1 231-764-5 -		-	-	-
Sodium nitrate	7631-99-4 231-554-3 -		2-3%	O; R8 Xi; R36 Xn; R22	Ox. Sol. 2, H272 Eye. Irrit.2; H319 Acute Tox. 4, H302

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Triethanolamine	102-71-6 203-049-8 -		3-5%	-	-
2-(2-ethoxyethoxy)-ethanol	111-90-0 203-919-7 -		20-30%	-	-
Ammonia... %	1336-21-6 215-647-6 007-001-01-2		3-5%	C; R34 N; R50	Skin Corr. 1B; H314 Aquatic Acute 1; H400
EDTA-2Na	6381-92-6 - -		3-5%	-	-

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-statements mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

##### 4.1 Description of first-aid measures

- General** In case of discomfort or feeling unwell seek medical advice and show the label, if possible. Never put anything into the mouth of an unconscious person.
- Inhalation** Move affected person to fresh air. If necessary, apply artificial respiration.
- Skin contact** Immediately wash the skin with plenty of water and rinse thoroughly. If skin irritation occurs, immediately seek medical attention.
- Eye contact** Wash the eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.
- Ingestion** Do not induce vomiting, seek medical attention.

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

- Inhalation:** Symptoms may include cough, sneezing, snivel, headache, dry throat and nose and sore throat.
- Skin contact:** Symptoms may include local skin redness, swelling and itching.
- Eye contact:** Symptoms may include eye redness, swelling, pain, lacrimation and blurred vision.
- Ingestion:** Symptoms may include stomach aches, gastric irritation, nausea, vomiting and diarrhoea.

##### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing agents

**Suitable extinguishing agents** Carbon dioxide, powder (fire extinguisher class B).

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**Unsuitable extinguishing agents** No information available.

**5.2 Special hazards arising from the substance or mixture**

**Special hazards** Keep containers cool with water spray from a safe distance.

**5.3 Advice for fire-fighters**

**Special protective equipment for fire-fighters** Wear normal protective clothing for fighting a fire involving chemicals.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid contact with eyes and skin. Ventilate the area. Do not breathe vapours. Remove all sources of ignition. Contain spilled material.

**6.2 Environmental precautions**

Do not allow to flow into sewage system/surface water/groundwater.

**6.3 Cleaning up methods, materials and retention**

Blot dry spill with adsorbent non-flammable material and close it in appropriately labelled disposal containers. Wash out the area with water.

**6.4 Reference to other sections**

**Personal protective equipment** See Section 8.  
**Waste management** See Section 13.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Advice for safe handling** Avoid contact with skin and eyes. Keep out of the reach of children.  
Do not breathe vapour.  
After using this product thoroughly wash your hands with water and soap.

**7.2 Conditions for a safe storage, including any incompatibilities**

**Technical measures/storage conditions** Keep container tightly closed in a dry and cool place.  
Keep away from food, drink and animal feedingstuffs.  
Maximum storage period: 2 years at a temperature below 50°C. Do not expose to direct sunlight.

**Incompatible materials** No information available.

**7.3 Specific end uses** No information available.

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Occupational exposure limit values for ingredients:

CAS: 102-71-6, 2,2',2"-nitrioltriethanol

Limit value: 5 mg/m<sup>3</sup> (l)

Source: Rules on the protection of workers from the risks related to exposure to chemical substances at work (OG RS No. 102/2010)

**8.2 Exposure controls**

**Engineering controls** Use only in well-ventilated areas. In confined spaces use general ventilation or local suction system. The standard precautionary measures are to be adhered to when handling chemicals.

**Personal protective equipment**

**General information** Immediately remove contaminated, soaked clothing. Wash hands and face after work. When using this product do not eat or drink.

**Respiratory protection** Not intended under normal operating conditions. In case of insufficient ventilation use half mask.

**Hand protection** Safety gloves. Glove material should be selected based on the breakthrough time, level of permeability and degradation.

Glove material:

The choosing of appropriate gloves does not depend only on the material, but more on several other properties – therefore the differences between different glove manufacturers. As the product presents a mixture of substances, the persistence of the glove material cannot be foreseen. Every pair of gloves should therefore be examined before its use.

The breakthrough time of the glove material:

The exact breakthrough time that you should take into consideration is available at the safety glove manufacturer.

**Eye protection** Avoid eye contact. Use of safety glasses with side shields is recommended.

**Skin and body protection** Not intended.

**8.3. Environmental exposure controls**

**General information** Not determined.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Appearance	Liquid
Colour	Colourless
Odour	Distinctive
pH	3.5-5.5
Flash point	No information available.
Boiling point	No information available.

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Vapour pressure	No information available.
Density	1.09 g/cm <sup>3</sup>
Vapour density (air = 1)	2.97
Content of HOS	< 650 g/l
Water solubility	Immiscible with water

**9.2 Other information**

No information available.

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

No information available.

**10.2 Chemical stability**

Product is stable under normal use conditions.

**10.3 Possibility of hazardous reactions:**

Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**

Avoid heat.

**10.5 Incompatible materials:**

Strong oxidising agents.

**10.6 Hazardous decomposition products**

No information available.

**11. TOXICOLOGICAL INFORMATION**

(a) Acute toxicity;

Sodium nitrate, CAS: 7631-99-4 (source: IUCLID)  
LD50, oral, rat, 1267-5200 mg/kg tt

(b) Irritation;

May cause respiratory irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.

(c) Corrosivity

No information available.

(d) Sensitization

No information available.

(e) Repeat dose toxicity

No information available.

(f) Carcinogenicity

No information available.

(g) Mutagenicity

No information available.

(h) Toxicity for reproduction

No information available.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No information available.

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

No information available.

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groundwater.

Prevent pollution of water resources, water courses and

**13. DISPOSAL CONSIDERATIONS****13.1 Waste management methods**

Contaminated packaging: Packaging is not reusable. Packaging must be disposed at an authorised collector and disposer of hazardous waste.

National regulations regarding waste:

- Decree on waste
- Decree on the management of packaging and packaging waste

**14. TRANSPORT INFORMATION**

- 14.1 UN number: -
- 14.2 UN proper shipping name: -
- 14.3 Transport hazard classification: -
- 14.4 Packaging group: -
- 14.5 Environmental hazard: -
- 14.6 Special precautions for user: -
- 14.7 Transport in bulk according to Annex II of the MARPOL Convention 73/78 and the IBC Code: no information available

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Regulation 1907/2006 (REACH), Directive 67/548/EEC and 1999/45/EC

**Regulations in Slovenia**

- Chemicals Act
- Rules on the classification, packaging and labelling of dangerous substances
- Rules on the classification, packaging and labelling of dangerous preparations
- Decree on waste
- Decree on the management of packaging and packaging waste
- Rules on the protection of workers from the risks related to exposure to chemical substances at work
- Rules on personal protective equipment used by workers at work

**15.2 Chemical safety assessment**

Chemical safety assessment has not been made.

**16. OTHER INFORMATION****Source of the Safety Data Sheet:** Composition of the product, manufacturer's safety data sheet**List of relevant R-phrases, hazard statements, safety phrases and/or precautionary statements**

- R8 Contact with combustible material may cause fire.  
R11 Highly flammable.  
R22 Harmful if swallowed.  
R34 Causes burns.

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R36 Irritating to eyes.  
R43 May cause sensitisation by skin contact.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R50 Very toxic to aquatic life.

H228 Flammable solid.  
H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H400 Very toxic to aquatic life.

**Date of previous issue:** -**Abbreviations:**

TWA (time-weighted average): daily exposure limit value (8 h)  
STEL (short-term exposure limits): limit value for short-term exposure  
REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals  
MV: occupational exposure limit value 8 h

The above information is based on our present knowledge and experience and relates to the product in the state in which it has been delivered. The information is to describe our product regarding safety requirements. Entries do not constitute a guarantee of the product properties in the legal sense. It is the consumer's responsibility to know and take into account the legal provisions relating to the transport and use of the product.

**End of the Safety Data Sheet**