



ENEOS Ultra Cool VWR

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 10/10/2014

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Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Product name : ENEOS Ultra Cool VWR
Product code : V161500186
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : industrial use, professional use, consumer use
Function or use category : Anti-freezing agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

JX NIPPON OIL & ENERGY EUROPE LIMITED
4th Floor, 4 Moorgate
London, EC2R 6DA
UNITED KINGDOM

1.4. Emergency telephone number

Emergency number : 0044 20 7186 0400
(Monday to Friday: 8:00 - 17:00)

Country	Organisation/Company	Address	Emergency number
ICELAND	Iceland Poisons Information Centre Landspítali University Hospital	Fossvogi 108 Reykjavik	+354 525 111 +354 543 2222
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
UNITED KINGDOM	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
Ελλάδα	Poisons Information Centre Children's Hospital "Aglaia. Kyriakou"	11527 Athens	+30 10 779 3777
إسرائيل	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096 Haifa	+972 4 854 1900

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral) H302
Repr. 2 H361
STOT RE 2 H373

Full text of H-statements: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R22

Full text of R-phrases: see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

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CLP Signal word	: Warning
Hazardous ingredients	: Ethylene glycol, Sodium-2-ethylhexanoate
Hazard statements (CLP)	: H302 - Harmful if swallowed H361 - Suspected of damaging fertility. Suspected of damaging the unborn child (oral) H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (Inhalation)
Precautionary statements (CLP)	: P102 - Keep out of reach of children P202 - Do not handle until all safety precautions have been read and understood P260 - Do not breathe mist, spray, vapours P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P301+P312 - IF SWALLOWED: Call a POISON CENTER if you feel unwell

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethylene glycol	(EC no) 203-473-3 (REACH-no) 01-2119456816-28	>= 50	Xn; R22	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Glycerol substance with national workplace exposure limit(s) (BE, CZ, ES, FI, FR, GB, GR, IE, IT, PL, PT)	(CAS No) 56-81-5 (EC no) 200-289-5	25 - 35	Not classified	Not classified
Sodium-2-ethylhexanoate	(CAS No) 19766-89-3 (EC no) 243-283-8 (REACH-no) 01-2119979083-31	2,5 - 5	Repr.Cat.3; R63	Repr. 2, H361d

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Seek medical attention if ill effect develops.
First-aid measures after inhalation	: Take victim to fresh air, in a quiet place, in an half laying position and if necessary take medical advice. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain medical attention if pain, blinking, tears or redness persist.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Drink plenty of water. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration.

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

Symptoms/injuries after inhalation	: At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Symptoms/injuries after skin contact	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after eye contact	: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Symptoms/injuries after ingestion	: Bad taste. Damage to kidneys. The main component of this product is harmful by ingestion. Swallowing a small quantity of this material will result in serious health hazard.
Symptoms/injuries upon intravenous administration	: Unknown.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water fog. Carbon dioxide (CO₂), dry chemical powder, foam.
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustion generates : CO, CO₂.
Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.

5.3. Advice for firefighters

- Precautionary measures fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Use self-contained breathing apparatus and chemically protective clothing.
Other information : Prevent fire-fighting water from entering environment. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Spill area may be slippery. Prevent soil and water pollution. Prevent entry to sewers and public waters.

6.1.1. For non-emergency personnel

- Protective equipment : Use protective clothing.
Emergency procedures : Consider evacuation.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : No specific measures are necessary.

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Notify authorities if product enters sewers or public waters. Prevent soil and water pollution. Prevent liquid from entering sewers, watercourses, underground or low areas. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

- For containment : Large quantities: Contain large spillage with sand or earth.
Methods for cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Take up large spills with pump or vacuum and finish with dry chemical absorbent.
Other information : Use suitable disposal containers. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. On water, recover/skim from surface and pour out in disposal container.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.
Precautions for safe handling : Avoid prolonged and repeated contact with skin. May be dangerously slippery if spilled. Where contact with eyes or skin is likely, wear suitable protection. Do not eat, drink or smoke during use. Remove contaminated clothing and shoes.
Hygiene measures : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Where contact with eyes or skin is likely, wear suitable protection. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed and in well ventilated place.
Storage conditions : Store in original container.
Incompatible products : Reacts vigorously with strong oxidizers and acids.
Maximum storage period : 5 year
Storage temperature : ≤ 40 °C.

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Prohibitions on mixed storage	: Keep away from : oxidizing materials. strong acids.
Storage area	: Store at ambient temperature.
Special rules on packaging	: Keep container tightly closed and dry.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerol (56-81-5)		
Belgium	Local name	Glycérine (brouillard)
Belgium	Limit value (mg/m ³)	10 mg/m ³
Croatia	Local name	Glicerol
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	10 mg/m ³
Czech Republic	Local name	Glycerol, mlha
Czech Republic	Expoziční limity (PEL) (mg/m ³)	10 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	2,4 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	15 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	3,7 ppm
Estonia	Local name	Glütseriin (glütserool, 1,2,3-propantriool)
Estonia	OEL TWA (mg/m ³)	10 mg/m ³
Finland	Local name	Glyseroli
Finland	HTP-arvo (8h) (mg/m ³)	20 mg/m ³
France	Local name	Glycérine (aérosols de)
France	VME (mg/m ³)	10 mg/m ³
Greece	OEL TWA (mg/m ³)	10 mg/m ³
Ireland	Local name	Glycerol, mist
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³
Poland	Local name	Glicerol aerozole
Poland	NDS (mg/m ³)	10 mg/m ³
Portugal	Local name	Glicerina, névoas
Portugal	OEL TWA (mg/m ³)	10 mg/m ³
Spain	Local name	Glicerina, nieblas
Spain	VLA-ED (mg/m ³)	10 mg/m ³
United Kingdom	Local name	Glycerol, mist
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³
Switzerland	Local name	Glycérine
Switzerland	VME (mg/m ³)	50 mg/m ³
Switzerland	VLE (mg/m ³)	100 mg/m ³
Switzerland	Remark (CH)	4x15
Australia	Local name	Glycerin mist
Australia	TWA (mg/m ³)	10 mg/m ³
Australia	Remark (AU)	(a)
USA - ACGIH	Local name	Glycerin mist
USA - ACGIH	Remark (ACGIH)	URT irr

8.2. Exposure controls

Appropriate engineering controls	: Large quantities: Contain large spillage with sand or earth.
Personal protective equipment	: Gloves. In case of splash hazard: safety glasses. Eye protection should only be necessary where liquid could be splashed or sprayed.

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Materials for protective clothing	: Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves
Hand protection	: In case of repeated or prolonged contact wear gloves. The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream). The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Eye protection	: Eye protection should only be necessary where liquid could be splashed or sprayed
Skin and body protection	: No special clothing/skin protection equipment is recommended under normal conditions of use. Avoid repeated or prolonged skin contact. If repeated skin contact or contamination of clothing is likely, protective clothing should be worn. Equipment should conform to EN 166.
Respiratory protection	: Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard. A combination filter for particles and organic gases and vapours (boiling point >65°C) may be required if vapour or abnormal odour is also present due to high product temperature. Use filter type AP or comparable standard.



Environmental exposure controls	: See Heading 12. See Heading 6.
Consumer exposure controls	: Neoprene or nitrile rubber gloves. Butylrubber protective gloves.
Other information	: Do not put the product-soaked rags into the pockets of working clothes. Do not use cloths stained with the product to dry hands. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: liquid.
Colour	: Red.
Odour	: odourless.
Odour threshold	: no data available
pH	: no data available
pH solution	: 7 - 10
Relative evaporation rate (butylacetate=1)	: < 0,1
Melting point	: no data available
Freezing point	: no data available
Boiling point	: > 100 °C.
Flash point	: > 111 °C.
Auto-ignition temperature	: > 390 °C.
Decomposition temperature	: no data available
Flammability (solid, gas)	: no data available
Vapour Pressure 20°C	: < 2 hPa
Relative vapour density at 20 °C	: > 1 (air=1)
Relative density	: no data available
Solubility	: Miscible with water.
Log Pow	: < -0,1
Viscosity, kinematic	: no data available
Viscosity, dynamic	: no data available
Explosive properties	: no data available
Oxidising properties	: no data available
Explosive limits	: no data available

9.2. Other information

VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Moisture. Overheating.

10.5. Incompatible materials

Strong oxidizing agents. strong acids.

10.6. Hazardous decomposition products

CO, CO₂.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed. (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child (oral).
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (kidneys) through prolonged or repeated exposure (Inhalation).
Aspiration hazard	: Not classified
Other information	: Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products. Likely route of exposure: ingestion, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

ENEOS Ultra Cool VWR	
Log Pow	< -0,1

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not discharge into drains or the environment.
Additional information	: Hazardous waste.

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Ecology - waste materials	: Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly. When not empty dispose of this container at hazardous or special waste collection point.
European List of Waste (LoW) code	: 16 01 14* - antifreeze fluids containing dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (UN)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

- Overland transport

no data available

- Transport by sea

no data available

- Air transport

no data available

- Inland waterway transport

Not subject to ADN : No

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- Rail transport

Carriage prohibited (RID) : No

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 %

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4.)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed
H361	Suspected of damaging fertility or the unborn child
H361d	Suspected of damaging the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
R22	Harmful if swallowed
R63	Possible risk of harm to the unborn child
Xn	Harmful

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product