

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

1.1. Product identifier

Product form : Mixture
Product name : RADIATOR COOLANT 50/50
UFI : A8KU-0KD9-KF03-VX3J
Product code : 5069
Type of product : WOC
Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Non-dispersive use
Used in closed systems
Function or use category : Liquid for car cooling circuit

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

WOLF OIL CORPORATION N.V.
Georges Gilliotstraat, 52
2620 Hemiksem - België
T 0032 (0)3 870 00 00 - F 0032 (0)3 870 00 99
info@wolfoil.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Austria	Vergiftungsinformationszentrale	Stubenring 6 1010 Wien	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов"	бул. Ген. Едуард И. Тотлебен 21 1606 София	+359 2 9154 233	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Cyprus	Κέντρο Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 29 Helsinki	+358 9 471 977 +358 800 147 111	
France	ORFILA		+33 1 45 42 59 59	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárad tér 2. 1097 Budapest	+36 80 20 11 99	
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni di Roma (CAV Policlinico "Umberto I") Università di Roma, Policlinico Umberto 1	Viale del Policlinico, 155 00161 Roma	+39 06 4997 8000	
Luxembourg	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Netherlands	Nationaal Vergiftigingen Informatie Centrum	Huispostnummer B.00.118 Postbus 85500 3508 GA Utrecht	+31 30 274 88 88	Only for the purpose of informing medical personnel in cases of acute intoxications
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisboa	+351 800 250 250	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4

H302

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Specific target organ toxicity — Repeated exposure, Category 2 H373

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

GHS08

Signal word (CLP)

: Warning

Contains

: ethanediol

Hazard statements (CLP)

: H302 - Harmful if swallowed.

H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (on ingestion).

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.

P270 - Do not eat, drink or smoke when using this product.

P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 - Rinse mouth.

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1 (REACH-no) 01-2119456816-28	60 – 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
potassium metaborate	(CAS-No.) 13709-94-9 (EC-No.) 237-262-2	1 – 2,5	Eye Irrit. 2, H319 Repr. 2, H361d

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: Allow affected person to breathe fresh air. Place the victim in semi-seated position. Seek medical advice.

First-aid measures after skin contact

: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Seek medical attention if ill effect or irritation develops.

First-aid measures after eye contact

: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Contact lenses should be removed. Seek medical attention if ill effect or irritation develops. Remove lenses.

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

First-aid measures after ingestion : Do not induce vomiting. Give water to drink if victim completely conscious/alert. Get immediate medical advice/attention.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry chemical product. Carbon dioxide. sand.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Impound and recover large spill by mixing it with inert granular solids.
Methods for cleaning up : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.
Other information : Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required. Remove ignition sources. No open flames. No smoking. Do not breathe vapours. Avoid: acids. Moisture. combustible materials. Take precautionary measures against static discharges.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage area : Store in dry, cool, well-ventilated area.
Special rules on packaging : Packaging destined for the general public must be fitted with a tactile danger indication.

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADIATOR COOLANT 50/50

EU - Occupational Exposure Limits

IOELV TWA (mg/m ³)	60 mg/m ³ @8h
IOELV STEL (mg/m ³)	125 mg/m ³ @ 15 min.

8.2. Exposure controls

Personal protective equipment:

Safety glasses. Gloves.

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

Eye protection:

Safety glasses

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Blue.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -36 °C
Boiling point	: 100 – 195 °C
Flash point	: 111 °C @ ASTM D92
Auto-ignition temperature	: 400 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Vapour pressure	: 2 kPa @20°C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,05 kg/m ³ @ 15°C
Solubility	: Miscible.
Partition coefficient n-octanol/water (Log Pow)	: No data available
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

heat. sparks. open flames. Moisture.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

RADIATOR COOLANT 50/50

LD50 oral rat	7712 mg/kg
LD50 dermal	> 3500 mg/kg Mouse
LC50 inhalation rat (mg/l)	> 2,5 @6h

ethanediol (107-21-1)

LD50 oral rat	500 mg/kg
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

RADIATOR COOLANT 50/50

NOAEL (oral, rat)	200 mg/kg bodyweight
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STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure (on ingestion).

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Ingestion may cause nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

RADIATOR COOLANT 50/50

LC50 fish 1	72860 mg/l Pimephales promelas @96h
EC50 Daphnia 1	> 100 ml/l @48h
EC50 other aquatic organisms 1	> 6500 Selenastrum capricornutum @96h
NOEC chronic fish	15380 ml/l Pimephales promelas @7d

ethanediol (107-21-1)

LC50 fish 1	53000 mg/l @96h - Pimephales promelas
EC50 Daphnia 1	51000 mg/l @48h - Daphnia magna
EC50 other aquatic organisms 1	24000 mg/l @168h - Selenastrum capricornutum

12.2. Persistence and degradability

RADIATOR COOLANT 50/50

Persistence and degradability	Prevent entry to sewers and public waters.
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ethanediol (107-21-1)

Biochemical oxygen demand (BOD)	0,47 g O ₂ /g substance
Chemical oxygen demand (COD)	1,29 g O ₂ /g substance
Biodegradation	90 %

12.3. Bioaccumulative potential

ethanediol (107-21-1)

Bioconcentration factor (BCF REACH)	10
Partition coefficient n-octanol/water (Log Pow)	-1,36

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.4. Mobility in soil

ethanediol (107-21-1)

Surface tension	49890 N/m @25°C
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Presents no specific risk for the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: 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 (ADR)	: 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

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol 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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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 : None of the components are listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Ontwikkeling

Denmark

Danish National Regulations : 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 chemical safety assessment has been carried out for the substance or the mixture by the supplier

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Label elements	Modified	

Abbreviations and acronyms:

	ACGIH: American Conference of Governmental Industrial Hygienists
	TWA: Time Weighted Average
	TLV: Threshold Limit Value
	ASTM: American Society for Testing and Materials
	ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route
	RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
	ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	IMDG: International Maritime Dangerous Goods
	ICAO: International Civil Aviation Organization
	IATA: International Air Transport Association
	STEL: Short Term Exposure Limit
	LD50: median Lethal Dose for 50% of subjects
	ATE: acute toxicity estimate
	LC50: median Lethal Concentration for 50% of subjects
	EC50: concentration producing 50% effect

Other information : The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

SDS EU (REACH Annex II)

RADIATOR COOLANT 50/50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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.