

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

1.1. Product identifier

Product form	: Mixture
Product name	: WOLF COOLANT G12+ LL -36°C
UFI	: MKEE-HHAU-0N43-CX1U
Product code	: 50151
Type of product	: WOLF
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, Antwerpen
België
T 0032 (0)3 870 00 00, F 0032 (0)3 870 00 99
msds@wolfoil.com, <https://www.wolflubes.com/>

1.4. Emergency telephone number

Emergency number : 0032 (0)3 870 00 00

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
Specific target organ toxicity – Repeated exposure, Category 2 H373
Full text of H- and EUH-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)



Signal word (CLP)

: Warning

Contains

: ethanediol; ethylene glycol

Hazard statements (CLP)

: H302 - Harmful if swallowed.
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (on ingestion).

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Precautionary statements (CLP)	: P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P260 - Do not breathe vapours, spray. 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. P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.
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2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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	> 42.5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373
Potassium isononanoate	CAS-No.: 84501-71-3	< 1.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Methyl-1H-benzotriazole	CAS-No.: 29385-43-1 EC-No.: 249-596-6 REACH-no: 01-2119979081-35	< 0.15	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Repr. 2, H361 Aquatic Chronic 2, H411

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Adverse effects not expected from this product. Allow affected person to breathe fresh air. Place the victim in semi-seated position. Seek medical advice.
First-aid measures after skin contact	: Remove contaminated clothing. Wash skin with mild soap and water. If skin irritation or rash occurs: Get medical advice/attention.
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.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
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Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Harmful if swallowed.

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.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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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.
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6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and gloves.
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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. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.
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	: Ensure good ventilation of the work station. Avoid aerosolbuilding.
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 temperature	: 40 °C
Storage area	: Store in dry, cool, well-ventilated area.

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Special rules on packaging : Packaging destined for the general public must be fitted with a tactile danger indication.
Packaging materials : Store always product in container of same material as original container.

Germany

Storage class (LGK, TRGS 510) : LGK 10-13 - Other combustible and non-combustible substances

Switzerland

Storage class (LK) : LK 6.1 - Toxic materials

7.3. Specific end use(s)

Anti-Freeze and De-icing products.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

WOLF COOLANT G12+ LL -36°C	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL STEL	104 mg/m ³ @ 15 min.
	40 ppm @ 15 min.
ethanediol (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	52 mg/m ³
	20 ppm
IOEL STEL	104 mg/m ³
	40 ppm
Ireland - Occupational Exposure Limits	
OEL TWA	52 mg/m ³
	20 ppm
OEL STEL	40 mg/m ³
	104 ppm
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	25 mg/m ³
	10 ppm
KTV (OEL STEL)	25 mg/m ³
	10 ppm

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses. Gloves.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Standard EN 166 - Personal eye-protection.

8.2.2.2. Skin protection

Skin and body protection:

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

Hand protection:

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

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: pink.
Appearance	: Liquid.
Odour	: mild. slight.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: -36 °C (ASTM D3321)
Boiling point	: 170 – 180 °C
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 111 °C
Auto-ignition temperature	: 400 °C
Decomposition temperature	: 398 °C
pH	: 7.5 – 9 (ASTM D1287)
pH solution	: ≥ 0
Viscosity, kinematic	: 1.89 mm²/s @20°C
Viscosity, dynamic	: 2.03 cP @20°C
Solubility	: Miscible.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 1.823 hPa @20°C

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Vapour pressure at 50°C	: 9.613 hPa @50°C
Density	: 1062 g/ml @20°C (ASTM D4052)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

WOLF COOLANT G12+ LL -36°C	
ATE CLP (oral)	1068.148 mg/kg bodyweight
ethanediol (107-21-1)	
LD50 oral rat	500 mg/kg
LD50 dermal rat	10000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 2.5 mg/l/4h @6h
Methyl-1H-benzotriazole (29385-43-1)	
LD50 oral rat	720 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7.5 – 9 (ASTM D1287)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7.5 – 9 (ASTM D1287)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)

ethanediol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1500 mg/kg bodyweight

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: May cause damage to organs (kidneys) through prolonged or repeated exposure (on ingestion).

ethanediol (107-21-1)

NOAEL (oral, rat, 90 days)	220200 mg/kg bodyweight/day OECD 407
NOAEL (dermal, rat/rabbit, 90 days)	2220 mg/kg bodyweight/day OECD 410
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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Viscosity, kinematic	1.89 mm²/s @20°C
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

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

ethanediol (107-21-1)

LC50 - Fish [1]	41000 mg/l @96h - Oncorhynchus mykiss
LC50 - Fish [2]	> 14 – < 18 ml/l @96h - Oncorhynchus mykiss (static)
EC50 - Crustacea [1]	46300 mg/l @48h - Daphnia magna
EC50 - Crustacea [2]	> 100 mg/l
EC50 96h - Algae [1]	> 6500 – < 13000 mg/l
NOEC chronic fish	15380 mg/l @ 7d - Pimephales promelas
NOEC chronic crustacea	8590 mg/l

Methyl-1H-benzotriazole (29385-43-1)

LC50 - Fish [1]	25.5 mg/l (Pimephales promelas)
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Methyl-1H-benzotriazole (29385-43-1)	
LC50 - Fish [2]	65 mg/l (Brachydanio rerio)
LC50 - Other aquatic organisms [1]	180 mg/l
EC50 - Crustacea [1]	87.4 mg/l (Daphnia magna)
EC50 - Crustacea [2]	55 mg/l (Daphnia magna)
EC50 72h - Algae [1]	62 mg/l (Selenastrum capricornutum)
ErC50 algae	75 mg/l
NOEC chronic crustacea	18.4 mg/l @21DY (Daphnia magna)
NOEC chronic algae	30 mg/l

12.2. Persistence and degradability

WOLF COOLANT G12+ LL -36°C	
Persistence and degradability	Prevent entry to sewers and public waters.
ethanediol (107-21-1)	
Persistence and degradability	Rapidly degradable
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.29 g O ₂ /g substance
Biodegradation	90 %
Potassium isononanoate (84501-71-3)	
Persistence and degradability	Not rapidly degradable
Methyl-1H-benzotriazole (29385-43-1)	
Persistence and degradability	Rapidly degradable
Biodegradation	4 %

12.3. Bioaccumulative potential

ethanediol (107-21-1)	
Bioconcentration factor (BCF REACH)	10
Partition coefficient n-octanol/water (Log Pow)	-1.36
Methyl-1H-benzotriazole (29385-43-1)	
Partition coefficient n-octanol/water (Log Kow)	1.71 (≥ 1.079 – ≤ 1.083)
Bioaccumulative potential	No data available.

12.4. Mobility in soil

ethanediol (107-21-1)	
Surface tension	49890 N/m @25°C
Methyl-1H-benzotriazole (29385-43-1)	
Ecology - soil	No information available.

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Endocrine disrupting properties

No additional information available

12.7. 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 / IMDG / IATA / ADN / RID

14.1. UN number or ID 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

Other information : No supplementary information available

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

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
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

MAL code : 00-3 (Executive Order No. 301 from 1993)
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 additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Added	
	Revision date	Added	
9.1	Freezing point	Modified	
9.1	pH	Modified	
9.1	Density	Modified	

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
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Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

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.