Safety Data Sheet according to Regulation (EC) No. 453/2010 Date of issue: 08/10/2014 Revision date: 13/07/2015

Supersedes: 27/11/2014

Version: 2.0

1.1.	Product identifier	
Product		: Mixture
Product		: WOLF COOLANT -36°C LONGLIFE G12+
Product	code	: 50101
Product	group	: Blend
1.2.	Relevant identified uses of the su	bstance or mixture and uses advised against
1.2.1.	Relevant identified uses	
Main use	e category	: Industrial use, Professional use, Consumer use
ndustria	I/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	
√o addit	ional information available	
1.3.	Details of the supplier of the safet	ty data sheet
Georges 2620 He T 0032 (DIL CORPORATION N.V. 5 Gilliotstraat, 52 miksem - België 0)3 870 00 00 / 0476/23 33 14 <u>olfoil.com</u>	
1.4.	Emergency telephone number	
Emerger	ncy number	: 0032 (0)70 245 245
SECTI	ON 2: Hazards identification	
Classifie	Classification of the substance or cation according to Regulation (EC) ox. 4 (Oral) H302 E 2 H373	
Classifie Acute To STOT R Full text Adverse	cation according to Regulation (EC) ox. 4 (Oral) H302 E 2 H373 of H-phrases: see section 16 e physicochemical, human health at) No. 1272/2008 [CLP]
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SECTION 3: Composition/information on ingredients

Substances 3.1.

Not applicable

Mixture 3.2.

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ethanediol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01-2119456816-28	50 - 75	Xn; R22
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	50 - 75	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	ŝ
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. Assure fresh air breathing. 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 e	ffects, both acute and delayed
Symptoms/injuries after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/injuries after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/injuries after ingestion	: Harmful if swallowed.
4.3. Indication of any immediate med	lical attention and special treatment needed
No additional information available	
SECTION 5: Firefighting measure	S
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
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 m	easures
6.1. Personal precautions, protective	e 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	
	lotify authorities if product enters sewers or public waters.
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6.3. Methods and material for contain	amont and algoning 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	 Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required. Remove ignition sources. No naked lights. No smoking. Take precautionary measures against static discharges.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.
7.2. Conditions for safe storage, incl	uding any incompatibilities
Storage temperature	: 40 °C
Prohibitions on mixed storage	: Food.
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.
7.3. Specific end use(s)	
Anti-Freeze and De-icing products.	
SECTION 8: Exposure controls/pe	ersonal protection

.1. Control parameters		
WOLF COOLANT -36°C LON	GLIFE G12+	
EU	IOELV STEL (mg/m³)	104 mg/m³ @ 15 min.
EU	IOELV STEL (ppm)	40 ppm @ 15 min.

Exposure controls 8.2.

Personal protective equipment

: Safety glasses. Gloves.



Hand protection	: Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm.
	Butyl rubber (IIR) /. Polyvinylchloride (PVC) /.
Eye protection	: Safety glasses. Standard EN 166 - Personal eye-protection.
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.

SECTION 9: Physical and chemica	al properties	
9.1. Information on basic physical an	d chemical properties	
Physical state	: Liquid	
Appearance	: Liquid.	
Colour	: purple.	
Odour	: mild. slight.	
Odour threshold	: No data available	
рН	: 7,5 - 9,5	
pH solution	: ≥0	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: No data available	
Freezing point	: -36 °C	
Boiling point	: ≥ 133 °C	
Flash point	: 111 °C	
Self ignition temperature	: 400 °C	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: No data available	

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Vapour pressure	:	1,823 hPa @20°C
Vapour pressure at 50 °C	:	9,613 hPa @50°C
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1071 kg/m³ @ 20°C
Solubility	:	Miscible.
Log Pow	:	No data available
Viscosity, kinematic	:	1,89 cSt @20°C
Viscosity, dynamic	:	2,03 cP @20°C
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. **Other information**

No additional information available

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 additional information available	
10.5. Incompatible materials	
No additional information available	
10.6. Hazardous decomposition products	·
None under normal conditions.	
SECTION 11: Toxicological informat	ion
11.1. Information on toxicological effects	
Acute toxicity	: Harmful if swallowed.
WOLF COOLANT -36°C LONGLIFE G12+	
ATE (oral)	500,000 mg/kg bodyweight
ethanediol (107-21-1)	
LD50 oral rat	500 mg/kg
Skin corrosion/irritation	: Not classified
	pH: 7,5 - 9,5
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	pH: 7,5 - 9,5 : Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
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 (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				
ethanediol (107-21-1)				
LC50 fishes 1	53000 mg/l @96h - Pimephales promelas			

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ethanediol (107-21-1)		
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	
WOLF COOLANT -36°C LONGLIFE G12+	
Persistence and degradability	Prevent entry to sewers and public waters.
ethanediol (107-21-1)	
Biochemical oxygen demand (BOD)	0,47 g O ² /g substance
Chemical oyxgen demand (COD) Biodegradation	1,29 g O ² /g substance 90 %
12.3. Bioaccumulative potential	
ethanediol (107-21-1)	
Bioconcentration factor (BCF REACH) Log Pow	10 -1,36
	-1,00
12.4. Mobility in soil	
ethanediol (107-21-1)	
Surface tension	49890 N/m @25°C
12.5. Results of PBT and vPvB assessmen	t
No additional information available	
12.6. Other adverse effects	
	: No specific risk for the environment.
SECTION 13: Disposal consideration	S
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 / ADNR / IMDG / IC	ΣΑΟ / ΙΑΤΑ
14.1. UN number	
No dangerous good in sense of transport regulation	ons
14.2. UN proper shipping name	
Not applicable	
14.3. Transport hazard class(es)	
Not applicable	
14.4. Packing group	
Not applicable	
Not applicable 14.5. Environmental hazards	
Not applicable 14.5. Environmental hazards Other information	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. Transport by sea	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. Transport by sea No additional information available	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. 14.6.2. Transport by sea No additional information available 14.6.3.	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. Transport by sea No additional information available 14.6.3. Air transport No additional information available	: No supplementary information available.
Not applicable14.5.Environmental hazardsOther information14.6.Special precautions for user14.6.1.Overland transportNo additional information available14.6.2.Transport by seaNo additional information available14.6.3.Air transportNo additional information available14.6.4.Inland waterway transport	: No supplementary information available.
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. Transport by sea No additional information available 14.6.3. Air transport No additional information available 14.6.4. Inland waterway transport No additional information available	
Not applicable 14.5. Environmental hazards Other information 14.6. Special precautions for user 14.6.1. Overland transport No additional information available 14.6.2. Transport by sea No additional information available 14.6.3. Air transport No additional information available 14.6.4. Inland waterway transport No additional information available	: No supplementary information available.

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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.

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure
R22	Harmful if swallowed
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.