


# SAFETY DATA SHEET

**Product: VALEO PROTECT 100 INORGANIC CONCENTRATED ADDITIVE**

1- Product and company identification	
Product name	VALEO PROTECT 100 INORGANIC CONCENTRATED ADDITIVE
1.2 Other ways of identification	
Product code	VA820658
1.3 Recommended uses of the chemical and restrictions on use	
Recommended use	Concentrated inorganic additive for automotive cooling systems
1.4 Company identification	
Company name	VALEO AUTOMOTIVE SYSTEMS LTDA
Address	AV. Pereira Barreto, 1479 Sala 1501 Andar 15, Baeta Neves São Bernardo do Campo ZIP CODE: 097151-00
1.5 Emergency telephone number	
SAC	(11) 4393-3325 / Fax: (11) 4393-3330
Emergency phone	0800 11 8270 - ABQUIM (Emergency Support Center), for leaks, spills and other accidents requiring emergency support.
Website	www.valeoservice.com

2 - Hazard identification	
2.1 Classification of the substance or mixture	
Classification according to GHS BR (ABNT NBR 14725 : 2023)	Acute toxicity (Oral), Category 4 Specific target organ toxicity - Repeated exposure, Category 2
2.2 Appropriate labeling elements	
GHS BR labeling	
Danger pictograms (GHS BR)	
Word of warning (GHS BR)	ATTENTION
Danger phrases (GHS BR)	H302 - Harmful if swallowed H373 - May cause damage to organs through prolonged or repeated exposure. prolonged

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<b>Precautionary statements (GHS BR) Prevention</b>	P260 - Do not inhale mists and vapors. P264 - Wash exposed areas thoroughly after handling. P270 - Do not eat, drink or smoke while using this product.
<b>Emergency Response</b>	P301+P312 - If swallowed: If you feel unwell, contact a toxicology information center or a doctor. P314 - If you feel unwell, seek medical advice. P330 - Rinse your mouth.
<b>Disposition</b>	P501 - Dispose of contents and container in accordance with local regulations.
<b>2.3 Other hazards that do not result in a classification</b>	
No additional information available	

<b>3 - Composition and information on ingredients</b>			
<b>3.1 Substances not applicable</b>			
<b>3.2 Mixtures</b>			
Name	Product identification	%	Classification according to GHS BR (ABNT NBR 14725: 2023)
Ethane-1,2-diol	CAS no.: 107-21-1	95,00	Tox. Acute 4 (Oral), H302 STOT RE 2, H373 Per. suction 2, H305
2-ethylhexanoic acid	CAS no.: 111-46-6	<5,00	Tox. Acute 4 (Oral), H302 STOT RE 2, H373

<b>4 - First-aid measures</b>	
<b>4.1 Description of the necessary first aid measures</b>	
<b>General first aid measures</b>	Seek medical advice immediately.
<b>First aid measures after inhalation</b>	Remove the person to a ventilated area and keep them at rest in a position that does not hinder breathing.
<b>First aid measures after skin contact</b>	After skin contact, immediately remove all contaminated clothing and rinse with plenty of water.
<b>First aid measures after eye contact</b>	In case of contact with eyes, rinse immediately with plenty of water. and seek medical advice.
<b>First aid measures after ingestion</b>	If swallowed, seek medical advice immediately and show this packaging or label.
<b>4.2 Most important symptoms and effects, acute or delayed</b>	

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<b>Symptoms/effects</b>	May cause damage to organs through repeated or prolonged exposure. Ingestion of a small amount of this material presents some danger to health.
<b>Symptoms/effects in case of inhalation</b>	Although no appropriate data on effects on human or animal health is known, this material is expected to be hazardous by inhalation.
<b>Symptoms/effects in case of skin contact</b>	None under normal conditions.
<b>Symptoms/effects in case of eye contact</b>	None under normal conditions.
<b>Symptoms/effects in case of ingestion</b>	Harmful if swallowed. Ingestion may cause nausea and vomiting.
<b>4.3 Indications for immediate medical attention and special treatments required, if necessary</b>	
<b>Notes to the doctor</b>	Treat symptomatically

**5 - Fire-fighting measures****5.1 Means of extinction**

<b>Suitable extinguishing media</b>	Water spray, dry chemical powder, foam for use on hydrocarbons, carbon dioxide (CO <sub>2</sub> ).
<b>Inadequate extinguishing media</b>	Do not use a strong jet of water.

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

<b>Danger of fire</b>	In the event of a fire and/or explosion, do not breathe the fumes.
<b>Danger of explosion</b>	No direct danger of explosion.

**5.3 Special protective measures for the firefighting team**

<b>Firefighting instructions</b>	Fight the fire taking normal precautions at a reasonable distance. Do not enter the fire area without suitable protective equipment, including respiratory protection.
<b>Protection during firefighting</b>	Use self-contained breathing equipment with positive pressure and protective clothing against chemical products.

**6 - Control measures for spills or leaks****6.1 Personal precautions, protective equipment and emergency procedures**

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<b>General measures</b>	Contain the leak if it can be done safely. Notify the authorities if the product enters drains or public waters. Absorb the spilled product to prevent material damage.
<b>6.1.1. for personnel who are not part of the emergency services</b>	
<b>Protective equipment</b>	Wear the recommended personal protective equipment.
<b>Emergency procedures</b>	Leave the area. Only qualified personnel equipped with suitable protective equipment may intervene. Notify the fire department and environmental authorities.
<b>6.1.2 For emergency service personnel</b>	
<b>Protective equipment</b>	Equip cleaning staff with adequate protection.
<b>Emergency procedures</b>	Evacuate unnecessary personnel. Contain the leak if it can be done safely.
<b>6.2 Environmental precautions</b>	
Do not allow to enter drains or watercourses. Notify the authorities if the product enters drains or public waters.	
<b>6.3 Containment and cleaning methods and materials</b>	
<b>For containment</b>	Absorb spilled material with sand or earth. Contain any spillage with barriers or absorbent materials to prevent migration and entry into drains or streams. Stop the leak, if possible without risk.
<b>Cleaning methods</b>	Clean contaminated surfaces with plenty of water. Absorb the spilled product in order to avoid material damage.

## 7- Handling and storage

### 7.1 Precautions for safe handling

<b>Additional dangers when processed</b>	Not expected to present a significant hazard under normal conditions of use.
<b>Precautions for safe handling</b>	Do not eat, drink or smoke while using this product. Store only in the original container. Do not handle the product until you have read and understood all the safety precautions.
<b>Hygiene measures</b>	Always wash your hands after handling the product. Remove clothing contaminated. Do not eat, drink or smoke while using this product.

### 7.2 Conditions for safe storage, including any incompatibilities

<b>Technical measures</b>	Store under lock and key.
<b>Storage conditions</b>	Keep in a cool place. Keep away from sunlight.

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<b>Packaging materials</b>	Always store the product in a container made of the same material as the original container.
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<b>8 - Exposure control and personal protection</b>	
<b>8.1. Control parameters</b>	
<b>Ethane-1,2-diol (107-21-1)</b>	
<b>USA - ACGIH - Occupational exposure limits</b>	
Local name	Ethylene Glycol - CAS# 107-21-1
ACGIH OEL TWA	100 mg/m <sup>3</sup>
ACGIH OEL TWA [ppm]	25 ppm (V - Vapor fraction)
ACGIH OEL STEL	10 mg/m <sup>3</sup>
ACGIH OEL STEL [ppm]	50 ppm
Observation (ACGIH)	URT irr; A4
Regulatory reference	(aerosol only)
<b>Exposure limit for mists/aerosols that may form when using this product:</b>	
<b>8.2 Engineering control measures</b>	
<b>Appropriate engineering controls</b>	Ensure good ventilation in the workplace.
<b>8.3 Individual protection measures</b>	
<b>Personal protective equipment:</b>	
Wear the recommended personal protective equipment.	
<b>Hand protection:</b>	
Protective gloves	
<b>Eye protection:</b>	
Wear safety glasses with side shields	
<b>Protection for skin and body:</b>	
Wear suitable protective clothing	
<b>Respiratory protection:</b>	
The use of respiratory protection equipment is recommended in cases where inhalation may occur during use.	
<b>Personal protective equipment symbol(s):</b>	

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### 9 - Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid.
Color	Blue, Vede
Odor	Lightweight
Odor cleaning	Not available
pH	9,5
Melting point	Not available
Freezing point	-42°C.
Boiling point	> 164 °C
Flash point	Not available
Relative evaporation rate (butyl acetate = 1)	Not available.
Flammability	Not available.
Explosion limits	Not available.
Vapor pressure	< 0.1 mm Hg (20°C)
Relative vapor density at 20°C	2,1
Relative density	1,125 (20/4°C)
Density	1.125 kg/l
Solubility	Water: (Full)
Partition coefficient n-octanol/water (Log Kow)	Not available.
Auto-ignition temperature	Not available

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Decomposition temperature	Not available.
Kinematic viscosity (40°C)	Not available.
Viscosity, dynamics	Not available.
<b>9.2 Other information</b>	
No additional information available	

<b>10- Stability and reactivity</b>	
10.1 Reactivity	The product is not reactive under normal conditions of use, storage and transportation.
10.2 Chemical stability	Stable under normal conditions of use.
10.3 Possible reactions dangerous	None, under normal conditions of use.
10.4 Conditions to avoid	Extremely high or low temperatures. Keep away from heat, sparks, open flames, hot surfaces. - Do not smoke.
10.5 Incompatible materials	Strong acids, Strong bases, Oxidizing agents.
10.6 Dangerous products from decomposition	At room temperature, there is no known hazardous product of decomposition.
10.7 Temperature manipulation	No additional information available

<b>11- Toxicological information</b>	
<b>11.1 Information on toxicological effects</b>	
<b>a. Acute toxicity</b>	
(oral)	Harmful if swallowed.
(dermal)	Not available
(inhalation)	Not available
<b>VALEO PROTECT 100 INORGANIC CONCENTRATED ADDITIVE</b>	
ETA BR (oral)	500 mg/kg body weight
<b>Ethane-1,2-diol (107-21-1)</b>	
Oral LD50, rat	4000 mg/kg
Dermal LD50, rat	9530 µl/kg
<b>Ethane-1,2-diol (107-21-1)</b>	
ETA BR (oral)	500 mg/kg body weight
ETA BR (cutaneous)	9530 mg/kg body weight

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<b>2,2'-oxydiethanol (111-46-6)</b>	
Dermal LD50, rabbit	11890 mg/kg
ETA BR (oral)	500 mg/kg body weight
ETA BR (cutaneous)	11890 mg/kg body weight
Corrosion/skin irritation	Not available. pH: 9.5
Serious eye damage/eye irritation	Not available. pH: 9.5
Respiratory sensitization or to the skin	Not available
Germ cell mutagenicity	No
Carcinogenicity	Not available
<b>Ethane-1,2-diol (107-21-1)</b>	
ENOAEL (chronic, oral, animal/male, 2 years)	1500 mg/kg body weight Animal: mouse, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)
Reproductive toxicity	Not available.
Toxicity to target organs specific - Single exposure	Not available.
Toxicity to target organs specific Repeated exposure	May cause damage to organs through repeated or prolonged exposure.
<b>Ethane-1,2-diol (107-21-1)</b>	
Specific target organ toxicity - Repeated exposure	May cause damage to organs through repeated or prolonged exposure
<b>2,2'-oxydiethanol (111-46-6)</b>	
Specific target organ toxicity - Repeated exposure	May cause damage to organs through repeated or prolonged exposure.
Danger from aspiration	Not available.
<b>Ethane-1,2-diol (107-21-1)</b>	
Kinematic viscosity (40°C)	14.505 mm <sup>2</sup> /s
<b>11.2 Most important symptoms and effects, acute or delayed</b>	
<b>Symptoms/effects</b>	May cause damage to organs through repeated or prolonged exposure. Ingestion of a small amount of this material presents some danger to health.



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<b>Symptoms/effects in case of inhalation</b>	Although no appropriate data on effects on human or animal health is known, this material is expected to be hazardous by inhalation.
<b>Symptoms/effects in case of skin contact</b>	None under normal conditions
<b>Symptoms/effects in case of eye contact</b>	None under normal conditions
<b>Symptoms/effects in case of ingestion</b>	Harmful if swallowed. Ingestion may cause nausea and vomiting.
<b>VALEO PROTECT 100 INORGANIC CONCENTRATED ADDITIVE</b>	
CL50 - Fish [1]	51000 mg/l Pimephales promelas

<b>12 - Ecological information</b>	
<b>12.1 Ecotoxicity</b>	
Hazardous to the aquatic environment, acute	Not classified.
Dangerous to the aquatic environment, chronic	Not available.
<b>Ethane-1,2-diol (107-21-1)</b>	
CL50 - Fish [1]	72860 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustaceans [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	3536 mg/l Test organisms (species): other:greenn algae
EC50 96h - Algae [2]	6500 - 13000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum).
NOEC (chronic)	≥ 1000 mg/l Test organisms (species): Americamysis bahia (previous name: Mysidopsis bahia) Duration: '23 d'
<b>2,2'-oxydiethanol (111-46-6)</b>	
CL50 - Fish [1]	> 500000 ppm (24h; Carassius auratus)
<b>12.2 Persistence and degradability</b>	
No additional information available	
<b>12.3 Bioaccumulative potential</b>	
No additional information available	
<b>12.4 Mobility in the soil</b>	
No additional information available	
<b>12.5 Other adverse effects</b>	

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Dangerous for the ozone layer	Not available
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### 13 - Final disposal considerations

<b>Regional legislation (waste)</b>	Law No. 12.305, of August 2, 2010 (National Solid Waste Policy).
<b>Waste treatment methods</b>	It must be treated in accordance with local legislation.
<b>Wastewater disposal recommendations</b>	Disposal must be carried out in accordance with official legislation.
<b>Product/packaging disposal recommendations</b>	Disposal must be carried out in accordance with official legislation.
<b>Additional information</b>	Do not reuse empty containers.

### 14 - Transport information

#### 14.1 National and international regulations

Not classified as dangerous for transportation in the different modes, but may be harmful in the event of an accident. For further details, please refer to Section 2 of this SDS.

<b>a. Land (railroads and roads)</b>	Not Regulated for Ground Transportation ANTT No. 5.947/2021 and its updates (National Transportation Agency Land).
<b>b. Waterway (sea, river and lake)</b>	Not Regulated for Marine Transportation according to the IMDG code International Maritime Dangerous Goods Code. Dangerous Goods (IMDG Code); Standard 5 of the DPC (Department of Ports and Coasts of the Ministry of the Navy); ANTAQ (National Waterway Transportation Agency).
<b>c. Air</b>	Not Regulated for Air Transport Dangerous Goods Regulation (DGR IATA); DAC - Civil Aviation Department of the Ministry of Aeronautics.

### 15 - Information on regulations

#### 15.1 National regulations

<b>Local regulations in Brazil</b>	ABNT Standard NBR 14725. Federal Decree No. 10.088, of November 5, 2019 - Consolidates normative acts issued by the Federal Executive Branch that provide for the promulgation of conventions and recommendations of the International Labor Organization.
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	ILO ratified by the Federative Republic of Brazil. Ordinance No. 2.770, of September 5, 2022 - Approves the new wording of Regulatory Standard No. 26 Federal Decree No. 96.044 of May 18, 1988 - Approves the Regulations for the Road Transport of Dangerous Products Resolution No. 5998, of November 3, 2022 - Updates the Regulations for the Road Transport of Dangerous Products, approves its Complementary Instructions, and makes other provisions.
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**16 - Other information****No additional information available**

**This information is based on our current knowledge and is intended to describe the product solely with a view to health, safety and environmental requirements. It should therefore not be interpreted as a guarantee of any specific product property.**