MATERIAL SAFETY DATA SHEET: PRIMELITE LIQUID COOLANT APPLICATION MIXTURE (PGL-04-00162, PGL-04-00163)

Product description:	Antifreeze and anti-corrosion coolant additive for industrial cooling circuits	Date of issue:	20 March 2025
Trade Mark:	primelite	Revision:	E
Manufacturer:	Primelite GmbH Bavariafilmplatz 7 82031 Gruenwald Germany	Total number of pages:	8
Model/Type reference:	Primelite Liquid Coolant Application Mixture	Applying EU directives:	1907/2006/EC (REACH)

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This material safety data sheet is intended to provide information and recommendations as to:

1. How to handle chemical substances and preparations in accordance with the essential requirements of safety precautions and physical, toxicological, and ecological data.
2. How to handle, store, use, and transport them safely.

No liability for damage occurred in connection with the use of this information or with the use, application, adaption, or processing of the product described here will be accepted. No liability will be accepted for damage indirectly incurred.

We provide this information and data according to our present level of knowledge and experience. No assurances concerning the characteristics of our product are hereby furnished.

Hazards Identification

Classification of the mixture

According to Regulation (EC) No 1272/2008 [CLP]

Hazard class	Hazard category	Hazard warning
Acute Tox. 4 (oral)	H302	Harmful if swallowed.
Eye Irrit. 2	H319	Causes serious eye irritation.
STOT RE 2 (Kidney)	H373	May cause damage to organs through prolonged or repeated exposure (kidneys).

For the classifications not written out in full in this section the full text can be found in the *Annex*.

Label elements

According to Regulation (EC) No 1272/2008 [CLP] / Globally Harmonized System, EU (GHS)

Signal Word: Warning

Hazard Statements

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements (Prevention)

P260	Do not inhale dust / gas /mist / vapors.
P264	Wash with plenty of water and soap thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Precautionary Statements (Response)

P312	If you feel unwell: Call a poison center or doctor / physician.
P301+P330	If swallowed: Rinse mouth.

Precautionary Statements (Disposal)

P501	Dispose of contents / container at hazardous or special waste collection point.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]: High risk of slipping due to leakage / spillage of product.

The product does not contain a vPvB substance (vPvB = very persistent, very bio accumulative) or does not fall under Annex XIII of Regulation (EC) No 1907/2006 (< 0.1 %).

The product does not contain any PBT substance (PBT = persistent, bio accumulative, toxic) or does not fall under Annex XIII of Regulation (EC) No 1907/2006 (< 0.1 %).

The product does not contain any substance with endocrine disrupting properties (< 0.1 %).

The product does not contain any substance(s) included in the candidate list according to Art. 59 (1, 10) of REACH Regulation (EC) No 1907/2006.

Composition / Information on Ingredients

Substance for which an EU exposure limit applies	Reg. 1272/2008/EC [CLP/GHS]	Dir. 1999/45/EC

Ethanediol (Ethylene Glycol)

REACH registration No:	01-2119456816-28
INDEX No:	603-027-00-1
EINECS, ELINCS, NLP, REACH-IT List-No:	203-473-3
CAS No:	107-21-1
Fraction in mixture:	> 20%
Classification according to Regulation (EC) No 1272/2008 (CLP):	Acute Tox. 4 (oral) H302, STOT RE 2 (Kidney) H373

Disodium sebacate

REACH registration No:	01-2120762063-61
INDEX No:	
EINECS, ELINCS, NLP, REACH-IT List-No:	241-300-3
CAS No:	17265-14-4
Fraction in mixture:	< 1.25%
Classification according to Regulation (EC) No 1272/2008 (CLP):	Eye Irrit. 2, H319

Water

REACH registration No:	
INDEX No:	
EINECS, ELINCS, NLP, REACH-IT List-No:	
CAS No:	7732-18-5
Fraction in mixture:	75%
Classification according to Regulation (EC) No 1272/2008 (CLP):	

The full text can be found in the *Annex* for all acronyms and classifications not written out in this section.

First-Aid Measures

Description of first aid measures

First-aiders should pay attention to self-protection!
Never give anything by mouth to an unconscious person!

If inhaled:	Remove person from danger zone. Supply person with fresh air and consult doctor depending on symptoms.
On skin contact:	Wash thoroughly with plenty of soap and water, remove contaminated, soaked clothing immediately. In case of skin irritation (redness etc.), consult a physician.
On contact with eyes:	Remove contact lenses. Rinse thoroughly with plenty of water for several minutes. If necessary, consult a doctor.
On ingestion:	Rinse mouth thoroughly with water. Give plenty of water to drink, seek medical attention immediately. Administer approx. 100 ml of ethanol (40 %) in pourable form.

First-Aid Measures

Most important symptoms and effects (acute and delayed): If applicable, delayed symptoms and effects can be found under description of first aid measures of this section or in the section *Toxicological Information*. Further important symptoms and effects are not known so far.

Indication of any immediate medical attention and special treatment needed: Symptomatic treatment (decontamination, elemental aid).

Fire-Fighting Measures

Suitable extinguishing agents: Water spray
Extinguishing powder
Alcohol-resistant foam
Carbon dioxide (CO_2)

Unsuitable extinguishing agents: None known

Special hazards arising from the substance or mixture: In the event of fire, carbon oxides may be formed.

Advice for fire-fighters: For personal protective equipment see section *Exposure Control / Personal Protection*. Do not inhale explosion and fire gases. Depending on fire size, use full protection. Cool endangered containers with water. Contaminated extinguishing water must be disposed of in accordance to official regulations.

Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: See section *Exposure Control / Personal Protection* for suitable protective equipment and material specifications. Keep unprotected persons away. Remove sources of ignition. Ensure sufficient ventilation. In case of solid or powdery products, avoid dust formation. Avoid contact with eyes and skin. Observe the risk of slipping. If possible, leave the danger zone using existing emergency plans.

Environmental protection measures: Contain in case of leakage of larger quantities. If safe to do so, eliminate leakage. Do not allow to enter sewage system. Prevent from entering surface and ground water as well as soil. In case of accidental discharge into drains, inform authorities.

Methods and material for containment and cleaning up: In case of large quantities, pump off product. Otherwise contain with liquid-binding material (e.g., universal binder, sand, diatomaceous earth, sawdust) and dispose of according to section *Disposal Considerations*.

Handling and Storage

General recommendations: Observe the information on the label and the instructions for use. Ensure sufficient ventilation. Avoid contact with eyes and skin. Do not eat, drink, smoke or store food in the work area. Do not inhale vapor / aerosol. Caution: danger of slipping.

Notes on general hygiene measures at the workplace: The general hygiene measures for handling chemicals must be applied. Wash hands before breaks and at the end of work. Keep away from food. Remove contaminated clothing and protective equipment before entering areas where food is consumed.

Conditions for safe storage: Store product only in original packaging at room temperature and in a dry place. Keep containers tightly closed. Avoid exposure to humidity and water. Store out of reach of unauthorized persons. Do not store product in passageways and stairways.

Exposure Control / Personal Protection

Components with occupational exposure limits

Ethanediol (Ethylene Glycol)	OEL value 52 mg/m³; 20 ppm (OEL (EU)) indicative. STEL value 104 mg/m³; 40 ppm (OEL (EU)) indicative. The substance can be absorbed through the skin.
Monitoring methods:	Draeger - Ethylene Glycol 10 (5) (81 01 351) Draeger - Alcohol 100/a (CH 29 701) Compur - KITA-232 SA (502 342) Compur - KITA-232 SB (550 267) NIOSH 5500 (ETHYLENE GLYCOL) – 1993 NIOSH 5523 (GLYCOLS) – 1996 OSHA PV2024 (ETHYLENE GLYCOL) – 1999 EU project BC/CEN/ENTR/000/2002-16 card 11-2 (2004)

DNEL and PMEC values

Ethanediol (Ethylene Glycol)

Application area	Exposure route	Health effect	Descriptor	Value
	Environment: Soil		PNEC	1.53 mg/kg
	Environment: Waste water treatment plant		PNEC	199.5 mg/l
	Environment: Seawater		PNEC	1 mg/l
	Environment: Seawater sediment		PNEC	3.7 mg/kg
	Environment: Freshwater		PNEC	10 mg/l
	Environment: Freshwater sediment		PNEC	37 mg/kg
Consumer	Man: Inhalation	Short-term, systemic	DNEL	7 mg/m³
Consumer	Man: Dermal	Long-term, systemic	DNEL	53 mg/kg bw/day
Employee	Man: Inhalation	Short-term, systemic	DNEL	35 mg/m³
Employee	Man: Dermal	Long-term, systemic	DNEL	106 mg/kg bw/day

Disodium sebacate

Application area	Exposure route	Health effect	Descriptor	Value
	Environment: Soil		PNEC	0.099 mg/kg
	Environment: Waste water treatment plant		PNEC	10 mg/l
	Environment: Seawater		PNEC	0.002 mg/l
	Environment: Seawater sediment		PNEC	0.055 mg/kg
	Environment: Freshwater		PNEC	0.018 mg/l
	Environment: Freshwater sediment		PNEC	0.548 mg/kg
Consumer	Man: Inhalation	Short-term, systemic	DNEL	8.7 mg/m³

Exposure Control / Personal Protection

Consumer	Man: Dermal	Long-term, systemic	DNEL	5 mg/kg bw/day
Employee	Man: Inhalation	Short-term, systemic	DNEL	5 mg/m^3
Employee	Man: Dermal	Short-term, systemic	DNEL	35.26 mg/m^3
Employee	Man: Dermal	Long-term, systemic	DNEL	10 mg/kg bw/day

Exposure controls

Suitable technical control equipment: Ensure good ventilation. This can be achieved by local exhaust ventilation or general exhaust air. If this is not sufficient to keep the concentration below the occupational exposure limits (OEL), suitable respiratory protection must be worn. This applies only if exposure limits are listed here. Appropriate assessment methods for verifying the effectiveness of the protective measures taken include metrological and non-measured methods of determination. Such methods are described in EN 14042 “Workplace atmospheres. Guidance for the application and use of methods and equipment for the determination of chemical and biological agents”.

Individual protective measures: The general hygiene measures for handling chemicals must be applied. Wash hands before breaks and at the end of work. Keep away from food. Remove contaminated clothing and protective equipment before entering areas where food will be eaten.

Eye/face protection:	Tight fitting safety glasses with side shields (EN 166)
Skin/hand protection:	Protective gloves made of nitrile (EN ISO 374), min layer thickness 0.4 mm, breakthrough time ≥ 480 minutes Protective work clothing (e.g., safety shoes EN ISO 20345, long-sleeved work clothing)
Respiratory protection:	Filter A P2 (EN 14387), if OEL is exceeded
Thermal hazards:	Not applicable

Additional information on hand protection: No tests have been carried out. Selection was made to the best of our knowledge using ingredient and glove manufacturer’s information. The final selection of glove material must be made considering breakthrough times, permeation rates, and degradation. Note that the quality characteristics vary from manufacturer to manufacturer. The resistance of glove materials must be checked before use. The exact breakthrough time of the glove material must be obtained from the protective glove manufacturer and must be observed.

Physical and Chemical Properties

Form:	Liquid
Color:	Orange, fluorescent under UV light
Odor:	Almost odorless
Melting point/freezing point:	≤ -12 °C (ISO 3016)
Boiling point:	> 103 °C (ASTM D 1120)
Flammability:	Not flammable
Lower explosion limit (20 °C):	3.2 vol-%
Upper explosion limit (20 °C):	15.0 vol-%
Flash point:	> 110 °C (ISO 2719, Ethanediol)
Decomposition temperature:	No information available
pH value (20 °C):	7 - 9 (ASTM D 1287)
Kinematic viscosity (20 °C):	3 - 5 mm^2/s (DIN 51562)
Miscibility with water:	Miscible in all proportions
Vapor pressure (20 °C):	0.2 hPa
Density (20 °C):	1.04 g/cm^3 (DIN 51757)
Solubility:	Polar solvents soluble
Hygroscopy:	Hygroscopic
Self-ignition:	Not self-igniting
Explosion hazard:	Not explosive
Fire promoting properties:	Not fire-propagating

Stability and Reactivity	
Reactivity:	No hazardous reactions if properly stored and handled. No corrosive effect on metals.
Chemical stability:	The product is stable if properly stored and handled.
Possibility of hazardous reactions:	No hazardous reactions known.
Conditions to avoid:	None known
Incompatible materials:	Avoid contact with strong oxidizing agents.
Hazardous decomposition products:	No decomposition if properly stored and handled.

Toxicological Information		
Coolant		
Acute toxicity:	LD50 human (oral)	~1,600 mg/kg
Ethanediol (Ethylene Glycol)		
Acute toxicity:	LD50 rat (oral)	> 2,000 mg/kg
	LD50 cat (dermal)	1,600 mg/kg
	LD50 rabbit (inhalation)	9,530 mg/kg
Skin corrosion / irritation:	Skin corrosion / irritation rabbit	Non-irritant
Serious eye damage / irritation	Eye damage / irritation rabbit	Slightly irritant
Respiratory / skin sensitization:	Patch-Test human	No skin sensitizing potential
Germ cell mutagenicity:	OECD 471	Negative
Disodium sebacate		
Skin corrosion / irritation:	Skin corrosion / irritation rabbit	Not irritant
Serious eye damage / irritation:	OECD 437 bovine cornea	Irritant, reversible within 21 days
Respiratory / skin sensitization:	Intradermal test guinea pig	--
Germ cell mutagenicity:	OECD 473 In vitro gene mutation	Negative

Ecological Information		
Coolant		
Toxicity:	LC50 fish (96 h)	> 100 mg/l, Leuciscus idus
	EC50 daphnia (48 h)	> 100 mg/l, Daphnia magna
	EC50 aquatic plants (72 h)	> 100 mg/l, Algae
Ethanediol (Ethylene Glycol)		
Toxicity:	LC50 fish (96 h)	> 10,000 mg/l, Primephales promelas
	EC50 daphnia (48 h)	41,100 mg/l, Daphnia magna
	EC50 aquatic plants (16 h)	> 10,000 mg/l, Pseudokirchneriella subcapitata
	EC50 bacteria (16h)	> 10,000 mg/l, Pseudomonas putida
Persistence and degradability:	OECD 301 C (28 d)	56%
Bioaccumulative potential:	Log Pow	-1.36 (Accumulation not to be expected)
Biochemical oxygen demand:	BOD_5	0.78 g/g
Chemical oxygen demand:	COD	1.19 g/g
Theoretical oxygen demand:	ThOD	1.29 g/g
Disodium sebacate		
Toxicity:	OECD 203 LC50 fish (96 h)	< 100 mg/l, Danio rerio
	ISO 14669 EL50 daphnia (48 h)	> 10 - 100 mg/l, Acartia tonsa

Ecological Information		
	ISO 10253 EL50 aquatic plants (72 h)	> 10 - 100 mg/l, Skeletonema costatum
Persistence and degradability:	OECD 306 (28 d)	89%
Bioaccumulative potential:	Log Pow	-4.9 (Accumulation not to be expected)

Disposal Considerations	
Recommendations for the product:	The product must be disposed of or incinerated in accordance with local regulations. Waste code: **16 01 14** Antifreeze fluids containing dangerous substances. The waste codes are recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignments (2014/955/EU).
Recommendations for the packaging:	Uncontaminated containers may be re-used. Packaging that cannot be cleaned should be disposed of in the same manner as the product.

Transport Information

Land transport (ADR/RID):	Not classified as a dangerous good under transport regulations.
Sea transport (IMDG):	Not classified as a dangerous good under transport regulations.
Air transport (IATA):	Not classified as a dangerous good under transport regulations.

Unless otherwise specified, the general measures for carrying out safe transport must be observed. The ambient temperature must be between -10 °C and + 60 °C. The pressure must be between 500 hPa and 1,060 hPa.

Annex

Full text of the classifications, if mentioned in section *Hazards Identification* or *Composition / Information on Ingredients*:

Acute Tox.	Acute toxicity
Eye Irrit.	Eye irritation category
STOT RE	Specific target organ toxicity (repeated exposure)
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.

Acronyms used in this document in alphabetical order:

ADN	European agreement concerning the international carriage of dangerous goods by inland waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).
ADR	European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif au transport des marchandises dangereuses par route).
ASTM	American Society for Testing and Materials
bw	Body weight
CAS	Chemical Abstract Service
CLP	Classification, Labelling and Packaging
DIN	German Standards Institute (Deutsches Institut für Normung)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50%
EL50	Effect Loading dose resulting in 50% mortality
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European standards
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
INDEX	Annex VI of Regulation No (EC) 1272/2008 [CLP / GHS]
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
NLP	No-longer-Polymer
OECD	Organization for Economic Cooperation and Development
OEL	Occupational Exposure Limit
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Regulations concerning the international carriage of dangerous goods by rail (Règlement concernant le transport International ferroviaire de marchandises dangereuses)