

ANTIFREEZE HD100



Version Number 6

Revision 08.05.2014

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

1.1. Product identifier

Product Name ANTIFREEZE HD100

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

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Company Address Prime Lubricants Ltd
 Oakney Wood Avenue
 Selby Business Park
 Selby
 North Yorkshire
 YO8 8FQ
 Tel. 01757 706996
 Fax. 01757 707994

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

• Classification according to Regulation (EC) No 1272/2008

Repr. 1B H360FD May damage fertility. May damage the unborn child.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
 Tox. 4 H302 Harmful if swallowed.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T; Toxic
 R60-61: May impair fertility. May cause harm to the unborn child. Xn; Harmful
 R22: Harmful if swallowed.

• Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

• Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

(Contd. on page 2)

2.2 label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS07

GHS08

- **Signal word:** warning

- **Hazard-determining components of labelling:**

ethanediol

disodium tetraborate pentahydrate

sodium nitrite

- **Hazard statements**

H302 Harmful if swallowed.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

P260 Do not breathe vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with national regulations.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterization: Substances

- **Identification number(s)** Not applicable.

3.2 Chemical characterization: Mixtures

- **Description:**

- Dangerous components:

CAS: 107-21-1	ethanediol	50-100%
EINECS: 203-473-3	Xn R22	
Reg.nr.: 01-2119456816-28	STOT RE 2, H373; Acute Tox. 4, H302	
CAS: 12179-04-3	disodium tetraborate pentahydrate	2.5-5%
EINECS: 215-540-4	T Repr. Cat. 1 R60-6 Xi R36	
Reg.nr.: 01-2119490790-32	Repr. 1B, H360FD; Eye Irrit. 2, H319	
CAS: 7632-00-0	sodium nit	0.1- <1%
EINECS: 231-555-9	T R25; O R8; N R50	
Reg.nr.: 01-2119471836-27	Ox. I. 2, H272; Acute Tox. 3, H301; Aquatic Acute 1, H400; Eye Irrit. 2, H319	

- Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First Aid measures

4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately. Rinse out mouth and then drink plenty of water.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions. Water haze
Alcohol resistant foam
CO2
Fire-extinguishing powder
BC powder
Sand

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

5.3 Advice for firefighters

- **Protective equipment:** Wear self-contained respiratory protective device.

Additional information: Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Keep away from ignition sources. Wear protective clothing.
- Ensure adequate ventilation

6.2 Environmental precautions:

- Do not allow to enter sewers/ surface or ground water.
- Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

• 7.1 Precautions for safe handling

- Keep receptacles tightly sealed.
- Ensure good ventilation/exhaustion at the workplace.
- Information about fire - and explosion protection:
- Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

• 7.2 Conditions for safe storage, including any incompatibilities

- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility:
- Do not store together with acids.
- Store away from flammable substances. Store away from water.
- Further information about storage conditions:
- Store in cool, dry conditions in well sealed receptacles. Store receptacle in fume cupboard.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

• 8.1 Control parameters

• Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol

- WEL ()
- Short-term value: 104** mg/m³, 40** ppm
- Long-term value: 10* 52** mg/m³, 20** ppm
- Sk *particulate **vapour

• DNELs

107-21-1 ethanediol

- Dermal DNEL Long-term - Systemic (consumer) 53 mg/kg bw/day (/)
- DNEL Long-term - Systemic (worker) 106 mg/kg bw/day (/)
- Inhalative DNEL Long-term- Local (consumer) 7 mg/m³ (/)
- DNEL Long-term - Local (worker) 35 mg/m³ (/)

12179-04-3 disodium tetraborate pentahydrate

- Oral DNEL Acute – Systemic (consumer) 1.15 mg/kg bw/day (/)
- DNEL Long-term – systemic (consumer) 1.15 mg/kg bw/day (/)
- Dermal DNEL Long-term – systemic (consumer) 231.8 mg/kg bw/day (/)
- DNEL Long-term – systemic (worker) 458.2 mg/kg bw/day (/)
- Inhalative DNEL Acute – Local (consumer) 17.04 mg/m³ (/)
- DNEL Acute – Local (worker) 17.04 mg/m³ (/)
- DNEL Long-term- Local (consumer) 17.04 mg/m³ (/)
- DNEL Long-term- Local (worker) 17.04 mg/m³ (/)
- DNEL Long-term - Systemic (consumer) 4.9 mg/ m³ (/)
- DNEL Long-term - Systemic (worker) 9.8 mg/ m³ (/)

7632-00-0 sodium nitrite

- Inhalative DNEL Acute - Systemic (worker) 2 mg/m³ (/)
- DNEL Long-term - Systemic (worker) 2 mg/m³ (/)

• **PNECs**

107-21-1 ethanediol

PNEC Fresh water	10 mg/l (/)
PNEC Marine water	1 mg/l (/)
PNEC Soil	1.53 mg/kg (/)

12179-04-3 disodium tetraborate pentahydrate

PNEC Fresh water	2.02 mg/l (/)
PNEC Intermittent release	13.7 mg/l (/)
PNEC Marine water	2.02 mg/l (/)
PNEC STP	10 mg/l (/)
PNEC Soil	5.4 mg/kg (/)

7632-00-0 sodium nitrite

PNEC Fresh water	0.0054 mg/l (/)
PNEC Fresh water sediment	0.0195 mg/kg (/)
PNEC Intermittent releases	0.0054 mg/l (/)
PNEC Marine sediment	0.0223 mg/kg (/)
PNEC Marine water	0.00616 mg/l (/)
PNEC STP	21 mg/l (/)
PNEC Soil	0.000733 mg/kg (/)

• **Additional information:** The lists valid during the making were used as basis.

• **8.2 Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

• **Respiratory protection:** Not required.

• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

• **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• **Eye protection:**



Tightly sealed goggles

• **Body protection:** Use protective suit.

SECTION 9: Physical and chemical properties

• **9.1 Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

Form: Fluid

Colour: Blue

Blue in UK

• **Odour:** Mild

• **Odour threshold:** Data Lacking.

• **pH-value:** Data Lacking.

• **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 198 °C

• **Flash point:** Data Lacking

• **Auto-ignition temperature:** Data Lacking

• **Decomposition temperature:** Data Lacking.

• **Explosion limits:** Data Lacking

• **Vapour pressure:** Data Lacking.

• **Relative density** 1.06 - 1.14 @ °C

• **Vapour density** Not determined.

• **Evaporation rate** Not determined.

• **Solubility** Soluble

• **Partition coefficient** Not available.

• **Viscosity:** Data Lacking

• **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:**
 - Acids
 - Strong oxidizing agents
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicology information

11.1 Information on toxicological effects

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**

107-21-1 ethanediol

Oral	LD50	>300 - ≤ 2000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)

12179-04-3 disodium tetraborate pentahydrate

Oral	LD50	3200-3400 mg/kg (rat)
Dermal	LC50	>2000 mg/kg (rabbit)
Inhalative	LD50	>2.0 mg/l (rat)

7632-00-0 sodium nitrite

Oral	LD50	180 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification

Guidelines for Preparations as issued in the latest version: Harmful

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Repr. 1B

SECTION 12: Ecological information

• **12.1 Toxicity**• **Aquatic toxicity:****107-21-1 ethanediol**

EC 50 (48 u)	>100 mg/l (daphnia magna)
EC 50 (96u)	6500-13000 mg/l (Pseudokirchneriella subcapitata)
LC 50 (96 u)	72860 mg/l (Pimephales promelas)

12179-04-3 disodium tetraborate pentahydrate

EC 50 (24u)	242 mg/l (daphnia magna)
LC 50	88 mg/l (Oncorhynchus mykiss) (24 days)
	65 mg/l (Carassius auratus) (7 days)

7632-00-0 sodium nitrite

EC 50 (48 u)	421 mg/l (Protozoa)
	15.4 mg/l (daphnia magna) (OECD 202)
LC 50 (48 u)	360 mg/l (Leuciscus idus)
LC 50 (96 u)	0.54-26.3 mg/l (Oncorhynchus mykiss)
NOEC	9.86 mg/l (daphnia)
	6.16 mg/l (Ictalurus punctatus)

• **12.2 Persistence and degradability:** No further relevant information available.

• **12.3 Bioaccumulative potential:** No further relevant information available.

• **12.4 Mobility in soil:** No further relevant information available.

• **Additional ecological information:**

• General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

• **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• **12.6 Other adverse effects:** No further relevant information available.

• **13.1 Waste treatment methods**• **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

• **Uncleaned packaging:**

• **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
- ADR, ADN, IMDG, IATA
- 14.2 UN proper shipping name
- ADR, ADN, IMDG, IATA
- 14.3 Transport hazard class(es)
- ADR, ADN, IMDG, IATA
- Class
- 14.4 Packing group
- ADR, IMDG, IATA
- 14.5 Environmental hazards:
- Marine pollutant:
- 14.6 Special precautions for user
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- UN "Model Regulation":

Void

Void

Void

Void

No

Not applicable.

Not applicable.

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- National regulations:
- Technical instructions (air):

<i>Class</i>	<i>Share in %</i>
NK	95.0

- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

" The information provided in these documents is based on our present state of knowledge of the product and is given in good faith and to the best of our experience. However, it should not be construed as a technical specification or as guaranteeing specific properties. In no event we will be responsible for damages or effects of any nature whatsoever, either express or implied, resulting from the use of this information. It is the own responsibility of the consignee and the user of the product to comply with all prevailing and applicable laws, regulations and directives. They should also make their own determination as to the suitability of the product for a particular use or application."

MATERIAL SAFETY DATA SHEET

Hazard statements in full

- H302 Harmful if swallowed.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
- H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

Risk phrases in full

- R22 Harmful if swallowed.
- R63 Possible risk of harm to the unborn child.
- .

• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the

International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidising Solids, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Repr. 1B: Reproductive toxicity, Hazard Category 1B

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

• *** Data compared to the previous version altered.**