

SAFETY DATA SHEET**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name	ON Direct Liquid Cooling PG 25
Product code	471072-BE26
SDS #	471072
Product type	Liquid.

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

Use of the substance/mixture	Thermal Management Fluid For specific application advice see appropriate Technical Data Sheet or consult our company representative.
-------------------------------------	---

1.3 Details of the supplier of the safety data sheet

Supplier	Lubricants UK Limited, Chertsey Road, Sunbury On Thames, Middlesex, TW16 7BP
	+44 (0)345 600 8125
E-mail address	MSDSadvice@bp.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER	Carechem: +44 (0) 1235 239 670 (24/7)
---------------------------------------	---------------------------------------

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Product definition	Mixture
---------------------------	---------

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

See sections 11 and 12 for more detailed information on health effects and environmental hazards.

2.2 Label elements

Signal word	No signal word.
Hazard statements	No known significant effects or critical hazards.
Prevention	Not applicable.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
Hazardous ingredients	Not applicable.
Supplemental label elements	Safety data sheet available on request.

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not applicable.
---	-----------------

Special packaging requirements

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	1/12
Version	2	Date of issue	24 November 2025	Format	United Kingdom (UK)
Date of previous issue			6 February 2025.	Language	ENGLISH (United Kingdom)

SECTION 2: Hazards identification

Containers to be fitted with child-resistant fastenings	Not applicable.
Tactile warning of danger	Not applicable.
2.3 Other hazards	
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.	This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.
Other hazards which do not result in classification	Contact with hot product may cause burns.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product definition Mixture

Synthetic base stock. Proprietary performance additives.

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
sodium benzoate	REACH #: 01-2119460683-35 EC: 208-534-8 CAS: 532-32-1	≤3	Eye Irrit. 2, H319	-	[1]

See Section 16 for the full text of the H statements declared above.

[1] Substance classified with a health or environmental hazard

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	Hot product - Flood with water to dissipate heat. In the event of any product remaining, do not try to remove it other than by continued irrigation with water. Obtain medical attention immediately. Cold product - Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.
Skin contact	Hot Product - Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain medical advice immediately. Cold Product - Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Potential acute health effects

Inhalation	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.
Ingestion	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Eye contact	See: Section 11. Toxicological Information - Potential acute health effects: Eye contact

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Inhalation	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Ingestion	Ingestion of large quantities may cause nausea and diarrhoea.

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	2/12
Version 2	Date of issue 24 November 2025	Format	United Kingdom (UK)	Language	ENGLISH (United Kingdom)
Date of previous issue	6 February 2025.				

SECTION 4: First aid measures

Skin contact	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Eye contact	Potential risk of transient stinging or redness if accidental eye contact occurs.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.
---------------------------	---

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
-------------------------------------	--

Unsuitable extinguishing media	Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.
---------------------------------------	---

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	During use heat transfer oils may be thermally degraded leading to the formation of volatile hydrocarbons with flash points considerably lower than the original product. It is therefore essential that the system is not drained while hot unless an inert gas system is used to displace flammable gaseous residues. Adequate ventilation is essential during draining operations as hot oil will fume.
--	--

The temperature at which spent product is drained is a compromise between the need to have the oil sufficiently hot to facilitate drainage, the need to avoid fuming and the dangers of fire from degraded oil with a low flash point. It is recommended therefore that spent oil is drained at a temperature of less than 100°C. During system filling and venting, care should be taken to ensure that hot oil is not pumped through the expansion tank. A failure to prevent this could, under certain conditions, lead to the creation of a flammable atmosphere in the expansion tank. As the expansion tank is being filled it is essential that the gases and vapours formed should be free to vent to an open atmosphere where they can quickly disperse. Oil soaked lagging may spontaneously ignite and should be replaced by fresh lagging as soon as possible. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products	Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) metal oxide/oxides
--------------------------------------	--

5.3 Advice for firefighters

Special precautions for fire-fighters	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
--	---

Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
---	---

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Floors may be slippery; use care to avoid falling. Put on appropriate personal protective equipment.
------------------------------------	--

For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
---------------------------------	---

6.2 Environmental precautions	Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
--------------------------------------	---

6.3 Methods and material for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
--------------------	--

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	3/12
Version 2	Date of issue	24 November 2025	Format	United Kingdom (UK)	Language ENGLISH
Date of previous issue	6 February 2025.			(United Kingdom)	

SECTION 6: Accidental release measures

Large spill	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.
6.4 Reference to other sections	<p>See Section 1 for emergency contact information.</p> <p>See Section 5 for firefighting measures.</p> <p>See Section 8 for information on appropriate personal protective equipment.</p> <p>See Section 12 for environmental precautions.</p> <p>See Section 13 for additional waste treatment information.</p>

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/ containers designed for use with this product. Do not store in unlabelled containers.
Not suitable	Prolonged exposure to elevated temperature

7.3 Specific end use(s)

Recommendations	See section 1.2 and Exposure scenarios in annex, if applicable.
------------------------	---

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits	No exposure limit value known.
Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.	
Recommended monitoring procedures	Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Not available.

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls	<p>Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.</p> <p>All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated.</p> <p>Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.</p> <p>Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.</p>
---	---

Individual protection measures

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	4/12
Version	2	Date of issue	24 November 2025	Format	United Kingdom (UK)
Date of previous issue			6 February 2025.	Language	ENGLISH (United Kingdom)

SECTION 8: Exposure controls/personal protection

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory protection	<p>Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure.</p> <p>Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. In case of insufficient ventilation, wear suitable respiratory equipment.</p> <p>Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used. Use filter type P or comparable standard.</p> <p>Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required.</p> <p>A combination filter for particles, organic gases and vapours (boiling point >65°C) may be required if mist or fume is present as well as vapour. Use filter type AP or comparable standard.</p> <p>Approved air-supplied breathing apparatus must be worn where there is a risk of exceeding the exposure limit of carbon monoxide</p> <p>Approved air-supplied breathing apparatus must be worn where there is a risk of exposure to hazardous combustion and thermal decomposition products.</p> <p>Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work.</p> <p>The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.</p>
Eye/face protection	<p>Hot material: to prevent thermal burns wear a helmet, full face visor and heat resistant neck flap / apron.</p> <p>Cold material: wear safety glasses with side shields.</p>
Skin protection	
Hand protection	<p>General Information:</p> <p>Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).</p> <p>Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.</p> <p>Hot material: to prevent thermal burns wear heat resistant and impervious gauntlets/gloves.</p> <p>Cold material: Wear chemical resistant gloves. Recommended: nitrile gloves.</p> <p>Breakthrough time:</p> <p>Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.</p> <p>Our recommendations on the selection of gloves are as follows:</p> <p>Continuous contact:</p> <p>Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.</p> <p>If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.</p> <p>Short-term / splash protection:</p> <p>Recommended breakthrough times as above.</p> <p>It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.</p> <p>Glove Thickness:</p>

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	5/12
Version	2	Date of issue	24 November 2025	Format	United Kingdom (UK) (United Kingdom)
Date of previous issue	6 February 2025.	Language	ENGLISH		

SECTION 8: Exposure controls/personal protection

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Skin and body

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Thermal hazards

Wear impervious and heat resistant coveralls covering the full body and limbs. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Refer to standards:

Respiratory protection: EN 529

Gloves: EN 420, EN 374

Eye protection: EN 166

Filtering half-mask: EN 149

Filtering half-mask with valve: EN 405

Half-mask: EN 140 plus filter

Full-face mask: EN 136 plus filter

Particulate filters: EN 143

Gas/combined filters: EN 14387

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Green.
Odour	Mild
Odour threshold	Not available.
Melting point/freezing point	<-11.2°C (<11.8°F)
Initial boiling point and boiling range	>102°C (>215.6°F)
Flammability	Not available.
Lower and upper explosion limit	Not available.
Flash point	 Closed cup: 130.5°C (266.9°F) [Pensky-Martens]

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	6/12
Version 2	Date of issue 24 November 2025	Format	United Kingdom (UK)	Language	ENGLISH
Date of previous issue	6 February 2025.		(United Kingdom)		

SECTION 9: Physical and chemical properties

Auto-ignition temperature	<table border="1"> <thead> <tr> <th>Ingredient name</th><th>°C</th><th>°F</th><th colspan="3">Method</th></tr> </thead> <tbody> <tr> <td>propane-1,2-diol</td><td>371</td><td>699.8</td><td colspan="3"></td></tr> <tr> <td>sodium benzoate</td><td>>500</td><td>>932</td><td colspan="3" rowspan="5"></td></tr> </tbody> </table>						Ingredient name	°C	°F	Method			propane-1,2-diol	371	699.8				sodium benzoate	>500	>932			
Ingredient name	°C	°F	Method																					
propane-1,2-diol	371	699.8																						
sodium benzoate	>500	>932																						
Decomposition temperature	Not available.																							
pH	8.7																							
Kinematic viscosity	Not available.																							
Solubility	<table border="1"> <thead> <tr> <th>Media</th><th>Result</th></tr> </thead> <tbody> <tr> <td>water</td><td>Miscible in water.</td></tr> </tbody> </table>						Media	Result	water	Miscible in water.														
Media	Result																							
water	Miscible in water.																							
Partition coefficient n-octanol/water (log value)	Not applicable.																							
Vapour pressure	<table border="1"> <thead> <tr> <th rowspan="2">Ingredient name</th><th colspan="2">Vapour Pressure at 20°C</th><th colspan="3">Vapour pressure at 50°C</th></tr> <tr> <th>mm Hg</th><th>kPa</th><th>Method</th><th>mm Hg</th><th>kPa</th></tr> </thead> <tbody> <tr> <td>propane-1,2-diol</td><td>0.15</td><td>0.02</td><td>EU A.4</td><td></td><td></td></tr> </tbody> </table>						Ingredient name	Vapour Pressure at 20°C		Vapour pressure at 50°C			mm Hg	kPa	Method	mm Hg	kPa	propane-1,2-diol	0.15	0.02	EU A.4			
Ingredient name	Vapour Pressure at 20°C		Vapour pressure at 50°C																					
	mm Hg	kPa	Method	mm Hg	kPa																			
propane-1,2-diol	0.15	0.02	EU A.4																					
Density and/or Relative density	>1000 kg/m ³ (>1 g/cm ³) at 20°C																							
Relative vapour density	Not available.																							
Particle characteristics																								
Median particle size	Not applicable.																							
9.2 Other information																								
Evaporation rate	Not available.																							
Explosive properties	Not available.																							
Oxidising properties	Not available.																							

SECTION 10: Stability and reactivity

10.1 Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
10.2 Chemical stability	The product is stable.
10.3 Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
10.4 Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
10.5 Incompatible materials	Reactive or incompatible with the following materials: oxidising materials.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Not available.

Acute toxicity estimates

N/A

Skin corrosion/irritation

Not available.

Serious eye damage/eye irritation

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	7/12	
Version 2	Date of issue	24 November 2025	Format	United Kingdom (UK)	Language	ENGLISH
Date of previous issue	6 February 2025.			(United Kingdom)		

SECTION 11: Toxicological information

Product/ingredient name

sodium benzoate

Result

Rabbit - Eyes - Slightly irritating to the eyes.

Respiratory corrosion/irritation

Not available.

Respiratory or skin sensitization

Not available.

Germ cell mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.

Ingestion No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Eye contact No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation No specific data.

Ingestion No specific data.

Skin contact No specific data.

Eye contact No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Inhalation Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

Skin contact Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

Eye contact Potential risk of transient stinging or redness if accidental eye contact occurs.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] Not available.

General No known significant effects or critical hazards.

Product name ON Direct Liquid Cooling PG 25

Product code 471072-BE26

Page: 8/12

Version 2 **Date of issue** 24 November 2025

Format United Kingdom (UK)

Language ENGLISH

Date of previous issue 6 February 2025.

(United Kingdom)

SECTION 11: Toxicological information

Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Conclusion/Summary [Product] This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Not available.

Environmental hazards Not classified as dangerous

12.2 Persistence and degradability

Expected to be biodegradable.

12.3 Bioaccumulative potential

Not available.

Product/ingredient name	LogP _{ow}	BCF	Potential
sodium benzoate	-2.27	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
sodium benzoate	1.5	31.66

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
sodium benzoate	No	No	No	No	No	No	No

Mobility Liquid. Miscible in water.

Conclusion/Summary The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
sodium benzoate	No	N/A	N/A	No	N/A	N/A	N/A

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
sodium benzoate	No	No	No	No	No	No	No

Conclusion/Summary The product does not meet the criteria to be considered as a PBT or vPvB.

Regulation (EC) No. 1272/2008 [CLP]

12.6 Endocrine disrupting properties

Conclusion/Summary [Product] This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

12.7 Other adverse effects

No known significant effects or critical hazards.

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	9/12
Version	2	Date of issue	24 November 2025	Format	United Kingdom (UK)
Date of previous issue			6 February 2025.	Language	ENGLISH (United Kingdom)

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.

Hazardous waste Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 01 14*	antifreeze fluids containing hazardous substances

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

Packaging

Methods of disposal Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.

Waste code	European waste catalogue (EWC)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

Special precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

References

Commission 2014/955/EU
Directive 2008/98/EC

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user Not available.

14.7 Maritime transport in bulk according to IMO instruments Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page:	10/12
Version 2	Date of issue 24 November 2025	Format	United Kingdom (UK)	Language	ENGLISH
Date of previous issue	6 February 2025.		(United Kingdom)		

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Labelling

Not applicable.

Other regulations

REACH Status

The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

United States inventory (TSCA 8b)

All components are active or exempted.

Australia inventory (AIC)

All components are listed or exempted.

Canada inventory

All components are listed or exempted.

China inventory (IECSC)

All components are listed or exempted.

Japan inventory (CSCL)

All components are listed or exempted.

Korea inventory (KECI)

All components are listed or exempted.

Philippines inventory (PICCS)

All components are listed or exempted.

Taiwan Chemical Substances Inventory (TCSI)

All components are listed or exempted.

Explosive precursors

Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

EU - Water framework directive - Priority substances

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

SECTION 16: Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 CSA = Chemical Safety Assessment
 CSR = Chemical Safety Report
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EINECS = European Inventory of Existing Commercial chemical Substances
 ES = Exposure Scenario
 EUH statement = CLP-specific Hazard statement
 EWC = European Waste Catalogue
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page: 11/12
Version 2	Date of issue	24 November 2025	Format	United Kingdom (UK)
			Language	ENGLISH (United Kingdom)
Date of previous issue	6 February 2025.			

SECTION 16: Other information

OECD = Organisation for Economic Co-operation and Development
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 RRN = REACH Registration Number
 SADT = Self-Accelerating Decomposition Temperature
 SVHC = Substances of Very High Concern
 STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
 STOT-SE = Specific Target Organ Toxicity - Single Exposure
 TWA = Time weighted average
 UN = United Nations
 UVCB = Complex hydrocarbon substance
 VOC = Volatile Organic Compound
 vPvB = Very Persistent and Very Bioaccumulative
 Varies = may contain one or more of the following 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4 / RRN 01-2119483621-38, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements

H319 Causes serious eye irritation.

Full text of classifications [CLP/GHS]

Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

History

Date of issue/ Date of revision 24/11/2025.

Date of previous issue 06/02/2025.

Prepared by Product Stewardship

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

Product name	ON Direct Liquid Cooling PG 25	Product code	471072-BE26	Page: 12/12
Version 2	Date of issue 24 November 2025	Format	United Kingdom (UK)	Language ENGLISH
Date of previous issue	6 February 2025.		(United Kingdom)	