

SAFETY DATA SHEET

ALV Plus

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.

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

1.1. Product identifier

Product name ALV Plus

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

Identified uses Heat Transfer Fluid

1.4. Emergency telephone number

Emergency telephone +44 (0) 1253 500800 (09:00 - 17:00, Mon-Fri)

Dilutions Applicable for dilutions between 25% product and 100% product

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Human health The product is considered to be a low hazard under normal conditions of use.

Environmental The product is not expected to be hazardous to the environment.

2.2. Label elements

Hazard statements NC Not Classified

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Composition comments None of the ingredients are required to be listed.

SECTION 4: First aid measures

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4.1. Description of first aid measures

General information	Treat symptomatically.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information	The product is considered to be a low hazard under normal conditions of use.
Inhalation	Considered to be a low inhalation hazard at normal workplace temperatures.
Ingestion	No specific symptoms known. May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with the following media: Water spray, foam, dry powder or carbon dioxide. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	The product is not flammable. No unusual fire or explosion hazards noted.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	Evacuate area and flight fire from a safe distance. Fight fire with normal precautions from a reasonable distance. Water spray should be used to cool containers. No action shall be taken without appropriate training or involving any personal risk.
Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions

No action shall be taken without appropriate training or involving any personal risk. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Clean up spills immediately, observing precautions in Protective Equipment section. Wash thoroughly after dealing with a spillage. Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions

Contain spillage with sand, earth or other suitable non-combustible material. No specific requirements are anticipated under normal conditions of use. The product is not expected to be hazardous to the environment. The product is biodegradable but it must not be discharged into drains without permission from the authorities. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Flush contaminated area with plenty of water. Take care as floors and other surfaces may become slippery. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Do not handle until all safety precautions have been read and understood.

Advice on general occupational hygiene

No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Do not eat, drink or smoke when using this product. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Container must be kept tightly closed when not in use. Only store in correctly labelled containers. Keep containers upright.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments

No exposure limits known for ingredient(s).

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Good general ventilation should be adequate to control worker exposure to airborne contaminants.
Eye/face protection	Wear eye protection. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	No specific requirements are anticipated under normal conditions of use. Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash hands thoroughly after handling. Change work clothing daily before leaving workplace. Wash contaminated clothing before reuse. Provide eyewash station.
Respiratory protection	No specific requirements are anticipated under normal conditions of use. If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless. to Pale pink.
Odour	No characteristic odour.
Odour threshold	No information available.
pH	pH (concentrated solution): 9.5 - 10.5
Melting point	No information available.
Initial boiling point and range	105°C @ 1013 hPa
Flash point	>100 deg C Estimated value.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No information available.

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Relative density	~ 1.350
Solubility(ies)	Miscible with water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	3.31 (50% dilution) m ² /s @ 20°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index	~1.440
Freezing Point (°C)	(50% dilution) -30

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	This product has low toxicity. No specific health hazards known.
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Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
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Species	Rat
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Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat (OECD 423)
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Acute toxicity - dermal

Notes (dermal LD₅₀)	No information available.
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Acute toxicity - inhalation

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Notes (inhalation LC₅₀)	No information available.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	No information available.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	No information available.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	No information available.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	No information available.
<u>Carcinogenicity</u>	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	No information available.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	No information available.
<u>Aspiration hazard</u>	
Aspiration hazard	No data available.
General information	Not classified for health hazards.

SECTION 12: Ecological information

Ecotoxicity	Low acute toxicity to aquatic organisms.
<u>12.1. Toxicity</u>	
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hour: >1000 mg/l, Estimated value.
<u>12.2. Persistence and degradability</u>	
Persistence and degradability	The product is readily biodegradable.
<u>12.3. Bioaccumulative potential</u>	
Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	No information available.
<u>12.4. Mobility in soil</u>	
Mobility	The product is miscible with water. May spread in water systems.
<u>12.5. Results of PBT and vPvB assessment</u>	
Results of PBT and vPvB assessment	No data available.

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12.6. Other adverse effects

Other adverse effects The product is not expected to be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

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Guidance Workplace Exposure Limits EH40.

Authorisations (Annex XIV Regulation 1907/2006) None of the ingredients are listed.

Restrictions (Annex XVII Regulation 1907/2006) None of the ingredients are listed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Japan - ENCS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 LC₅₀: Lethal Concentration to 50 % of a test population.
 IMDG: International Maritime Dangerous Goods.
 IATA: International Air Transport Association.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).

General information Only trained personnel should use this material.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

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Revision 2.3

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SDS number 20315

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SDS status

Approved.

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