

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

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

1.1 Product identifier

Trade name : Immersion Cooling Fluid S5 X
Product code : 00113397
UFI : 7CP0-C0JC-4002-SKQM

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

Use of the Substance/Mixture : Insulating oil., Use only as coolant.
Uses advised against :
This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : **Shell Nederland Verkoopmaatschappij B.V.**
Weena 70
3012 CM Rotterdam
Netherlands
Telephone : (+31) 0900 202 2710
Telefax :
Email Contact for Safety Data Sheet : If you have any enquiries about the content of this SDS please email lubricantSDS@shell.com

1.4 Emergency telephone number

: +31 (0)10 4313233
National Poison Information Centre (NVIC): Tel. nr. +31(0)88 755 8000 (24 hrs a day and 7 days a week). Only for the purpose of informing medical personnel in cases of accidental intoxications.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters airways.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Hazard pictograms

:



Signal word

: Danger

Hazard statements

:

H304

PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP criteria.

HEALTH HAZARDS:

May be fatal if swallowed and enters airways.

ENVIRONMENTAL HAZARDS:

Not classified as environmental hazard according to CLP criteria.

Precautionary statements

: **Prevention:**

No precautionary phrases.

Response:

P331

Do NOT induce vomiting.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

Storage:

P405

Store locked up.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Contains Distillates (Fischer-Tropsch), heavy, C18-50- branched and linear

2.3 Other hazards

This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

Not classified as flammable but will burn.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature

: Fischer-Tropsch derived hydrocarbon base oil.

Hazardous components

Chemical name	CAS-No. EC-No. Registration	Classification (REGULATION (EC) No	Concentration (% w/w)

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

	number	1272/2008)	
Distillates (Fischer-Tropsch), heavy, C18-50- branched and linear	1262661-88-0 01-0000020163-82-0001	Asp. Tox.1; H304	>= 99 - <= 100

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
- If inhaled : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
- In case of eye contact : Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.
- If swallowed : Call emergency number for your location / facility. If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media : Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

5.3 Advice for firefighters

Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 6.1.1 For non emergency personnel:
Avoid contact with skin and eyes.
6.1.2 For emergency responders:
Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

or other containment material.
Reclaim liquid directly or in an absorbent.
Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet.,
For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

General Precautions : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

7.1 Precautions for safe handling

Advice on safe handling : Avoid prolonged or repeated contact with skin.
Avoid inhaling vapour and/or mists.
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Product Transfer : Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.

7.2 Conditions for safe storage, including any incompatibilities

Other data : Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.

Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.
Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral		TLV-8hr (Mist)	5 mg/m ³	NL WG
Oil mist, mineral		TWA (inhalable fraction)	5 mg/m ³	US. ACGIH Threshold Limit Values
Oil mist, mineral		TWA (Mist)	5 mg/m ³	NL WG

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods
<http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods
<http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances
<http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany
<http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

8.2 Exposure controls

Engineering measures The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

Do not ingest. If swallowed, then seek immediate medical assistance

Personal protective equipment

The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
Approved to EU Standard EN166.

Hand protection

Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [Type A/Type P boiling point > 65°C (149°F)] meeting EN14387 and EN143.

Thermal hazards : Not applicable

Environmental exposure controls

General advice : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. Information on accidental release measures are to be found in section 6. Take appropriate measures to fulfil the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Section 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : white
Odour Threshold : Data not available
pH : Not applicable
pour point : -36 °C Method: ISO 3016

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Melting point/freezing point	Data not available
Boiling point	: Data not available
Flash point	: 200 °C Method: ISO 2592
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)
Vapour pressure	: < 0,5 Pa (20 °C) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0,806 (15,0 °C)
Density	: 806 kg/m ³ (15,0 °C) Method: ISO 12185
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Data not available
Auto-ignition temperature	: > 320 °C
Decomposition temperature	: Data not available
Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 9,8 mm ² /s (40,0 °C) Method: ISO 3104
Explosive properties	: Not classified
Oxidizing properties	: Data not available

9.2 Other information

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Conductivity : This material is not expected to be a static accumulator.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 Chemical stability

Stable.

No hazardous reaction is expected when handled and stored according to provisions

10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Basis for assessment : Information given is based on data on the components and the toxicology of similar products.

Information on likely routes of exposure : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity : LD50 rat: > 5.000 mg/kg
Remarks: Low toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity : LC 50 Rat: > 20 mg/l
Remarks: Low toxicity by inhalation.
Based on available data, the classification criteria are not met.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Acute dermal toxicity : LD50 Rabbit: > 5.000 mg/kg
Remarks: Low toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Product:

Remarks: Not irritating to skin., Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Remarks: For respiratory and skin sensitisation:, Not a sensitiser., Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

Material	GHS/CLP Carcinogenicity Classification
Distillates (Fischer-Tropsch), heavy, C18-50- branched and linear	No carcinogenicity classification.

Reproductive toxicity

Product:

: Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

not met.

STOT - single exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Summary on evaluation of the CMR properties

Germ cell mutagenicity- Assessment : This product does not meet the criteria for classification in categories 1A/1B.

Carcinogenicity - Assessment : This product does not meet the criteria for classification in categories 1A/1B.

Reproductive toxicity - Assessment : This product does not meet the criteria for classification in categories 1A/1B.

SECTION 12: Ecological information

12.1 Toxicity

Basis for assessment : Information given is based on a knowledge of the components

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

and the ecotoxicology of similar products.

Product:

Toxicity to fish (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l
Practically non toxic:
Based on available data, the classification criteria are not met.

Toxicity to crustacean (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l
Practically non toxic:
Based on available data, the classification criteria are not met.

Toxicity to algae/aquatic plants (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l
Practically non toxic:
Based on available data, the classification criteria are not met.

Toxicity to fish (Chronic toxicity) : Remarks: NOEC/NOEL > 100 mg/l

Toxicity to crustacean (Chronic toxicity) : Remarks: NOEC/NOEL > 100 mg/l

Toxicity to microorganisms (Acute toxicity) :
Remarks: Practically non toxic:
LL/EL/IL50 > 100 mg/l
Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: Inherently biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

Partition coefficient: n-octanol/water : Remarks: Data not available

12.4 Mobility in soil

Product:

Mobility : Remarks: Liquid under most environmental conditions., If it enters soil, it will adsorb to soil particles and will not be mobile.
Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

Product:

Additional ecological information : Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential., Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use.
Films formed on water may affect oxygen transfer and damage organisms., Causes physical fouling of aquatic organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Recover or recycle if possible.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.

Waste, spills or used product is dangerous waste.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation

Remarks : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

EU Waste Disposal Code (EWC):
05 01 99 wastes not otherwise specified

SECTION 14: Transport information

14.1 UN number

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 Proper shipping name

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good
CDNI Inland Water Waste Agreement : NST 3493 Petroleum products, not specified
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.5 Environmental hazards

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV) : Product is not subject to Authorisation under REACH.

Volatile organic compounds : 0 %

Other regulations : The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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), annex XIV.

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), annex XVII.

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work and its amendments.

Directive 1994/33/EC on the protection of young people at work and its amendments.

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding and its amendments.

The components of this product are reported in the following inventories:

REACH : All components listed or polymer exempt.
TSCA : All components listed.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

REGULATION (EC) No 1272/2008
Aspiration hazard, Category 1, H304

Classification procedure:
Expert judgement and weight of evidence determination.

Full text of H-Statements

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

H304

May be fatal if swallowed and enters airways.

Full text of other abbreviations

Asp. Tox.

Aspiration hazard

Abbreviations and Acronyms : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID data base, EC 1272 regulation, etc). The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances

ASTM = American Society for Testing and Materials

BEL = Biological exposure limits

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council

CLP = Classification Packaging and Labelling

COC = Cleveland Open-Cup

DIN = Deutsches Institut für Normung

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

DSL = Canada Domestic Substance List

EC = European Commission

EC50 = Effective Concentration fifty

ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals

ECHA = European Chemicals Agency

EINECS = The European Inventory of Existing Commercial Chemical Substances

EL50 = Effective Loading fifty

ENCS = Japanese Existing and New Chemical Substances Inventory

EWC = European Waste Code

GHS = Globally Harmonised System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IC50 = Inhibitory Concentration fifty

IL50 = Inhibitory Level fifty

IMDG = International Maritime Dangerous Goods

INV = Chinese Chemicals Inventory

IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables

KECI = Korea Existing Chemicals Inventory

LC50 = Lethal Concentration fifty

LD50 = Lethal Dose fifty per cent.

LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021

LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HP = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

Further information

Training advice : Provide adequate information, instruction and training for operators.

Other information : A vertical bar (|) in the left margin indicates an amendment from the previous version.

This product is classified as H304 (May be fatal if swallowed and enters airways). The risk relates to potential for aspiration. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard and included within Section 8 of the SDS. An exposure scenario is not presented.

Sources of key data used to compile the Safety Data Sheet : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID data base, EC 1272 regulation, etc).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SAFETY DATA SHEET

According to EC No 1907/2006 as amended as at the date of this SDS

Immersion Cooling Fluid S5 X

Version 1.4

Revision Date 10.06.2021

Print Date 07.11.2021