SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

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

1.1 Product identifier

Product name: SO-COOL MM PLUS

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

Identified uses: Coolant/ Cutting solution
Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier SOLENT LUBRICANTS
65 Chartwell Drive, Leicester, England, LE18 2FS

Contact Person:

E-mail: contactus@cromwell.co.uk

1.4 Emergency telephone number: 0116 2572445 (08:00 – 17:00 Mon - Fri)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation GB-CLP.

Classification according to GB-CLP.

Health Hazards

Serious eye irritation	Category 2	H319: Causes serious eye irritation.

Hazard summary
Physical Hazards: No data available.

2.2 Label Elements



Signal Words: Warning

Hazard Statement(s): H319: Causes serious eye irritation.

Precautionary Statements

Prevention: P262: Do not get in eyes, on skin, or on clothing.

2.3 Other hazards: By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of mineral base oil, anionic and nonionic agents and corrosion preventing additives in combination with stabilizers based on glycol-fatty alcohols. This product is applied only as solution or emulsion in water.

Chemical name	Identifier	Concentration *	UK-REACH Registration No.	Notes
tert. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	1,00% - <5,00%		
tert. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	1,00% - <5,00%		
Fatty alcohol, ethoxylated	Polymer	1,00% - <3,00%		
acid, ionic equilibrium with organic bases	Neutralisation product (*)	1,00% - <5,00%		
Boric acid	EINECS: 233-139-2	0,10% - <0,30%		**

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
** UK-REACH Candidate List of SVHC for authorisation
(*) Neutralisation product: Equilibrium of Ionic Pairs in aequous solution according to GB-REACH Annex V, 4.

Classification

Chemical name	Identifier	Classification	
tert. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	GBCLP:	Acute Tox. 4;H302, Acute Tox. 3;H311, Acute Tox. 3;H331, Flam. Liq. 3;H226, Eye Irrit. 2;H319, Skin Irrit. 2;H315
tert. alkanolamine, ionic equilibrium with acids	Neutralisation product (*)	GBCLP:	Acute Tox. 4;H302, Acute Tox. 4;H312, Eye Irrit. 2;H319, Skin Irrit. 2;H315
Fatty alcohol, ethoxylated	Polymer	GBCLP:	Acute Tox. 4;H302, Eye Dam. 1;H318, Aquatic Chronic 3;H412
acid, ionic equilibrium with organic bases	Neutralisation product (*)	GBCLP:	Eye Irrit. 2;H319, Aquatic Chronic 3;H412
Boric acid	EINECS: 233-139-2	GBCLP:	Repr. 1B;H360FD

GB-CLP

specific concentration limit

Chemical name	Identifier	specific concentration limit	Hazard class	Hazard Category	Hazard statements
acid, ionic equilibrium with organic bases	Neutralisation product (*)	>= 10 %	Serious eye irritation	2	H319

For the wording of the listed hazard statements refer to section 16.

Please note that the mineral oils and petroleum distillates used in our products are severely refined and have a DMSO extract < 3% as measured by method IP 346 and are not classified as carcinogenic according to Note L of Annex VI of Regulation GB-CLP.

SECTION 4: First aid measures

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed Hand over this safety data sheet to the physician with the special comment "watermiscible cutting oil". Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures:	Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water inaccordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	In case of spills, beware of slippery floors and surfaces.
6.2 Environmental Precautions:	Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.
6.4 Reference to other sections:	See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal. Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:	Avoid contact with eyes. Wash hands thoroughly after handling. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Prevent formation of aerosols. Observe good industrial hygiene practices. Provide adequate ventilation.
7.2 Conditions for safe storage, including any incompatibilities:	Local regulations concerning handling and storage of waterpolluting products have to be followed. Store above freezing.
7.3 Specific end use(s):	Not applicable
Storage Class:	10-13, combustible / non-combustible liquids and solids

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

8.2 Exposure controls

Appropriate engineering controls: Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information: Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the chemicals or the mineral oil products.

Eye/face protection: Safety glasses (EN 166) recommended during refilling. Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

Skin protection

Hand Protection: Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: >= 480 min
Recommended thickness of the material: >= 0,38 mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection: Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards: Not known.

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

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Yellow-orange
Odor:	Characteristic
pH:	9,6 (50 g/l)
Freezing point:	not determined
Boiling Point:	Not applicable
Flash Point:	Not applicable
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	not determined
Flammability Limit - Upper (%)–:	Not applicable for mixtures
Flammability Limit - Lower (%)–:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	1,01 g/ml (15,00 °C)
Solubility(ies)	
Solubility in Water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	not determined
Decomposition Temperature:	not determined
Kinematic viscosity:	35 mm2/s (40 °C)
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
Particle characteristics:	Not applicable

9.2 Other information No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal use conditions.

10.2 Chemical Stability: Stable under normal use conditions.

10.3 Possibility of hazardous reactions: Stable under normal use conditions.

10.4 Conditions to avoid: Stable under normal use conditions.

10.5 Incompatible Materials: Strong oxidizing substances. Strong acids. Strong bases.

10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	No data available.
Eye contact:	Causes eye irritation.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product:	ATEmix: 13.760 mg/kg
Specified substance(s)	
tert. alkanolamine, ionic equilibrium with acids	LD 50 (Rat): 1.320 mg/kg
tert. alkanolamine, ionic equilibrium with acids	LD 50 (Rat): 600 mg/kg
Boric acid	LD 50 (Rat, Male): 3.450 mg/kg (OECD 401)

Dermal

Product:	ATEmix: 23.469 mg/kg
Specified substance(s)	
tert. alkanolamine, ionic equilibrium with acids	LD 50 (Guinea Pig): 855 mg/kg
tert. alkanolamine, ionic equilibrium with acids	LD 50 (Rabbit): 1.680 mg/kg

Inhalation

Product:	ATEmix: 102,56 mg/l Vapour Vapour
Specified substance(s)	
Boric acid	LC 50 (Rat, Female, Male, 4 h): > 2,12 mg/l (OECD 403)

Skin Corrosion/Irritation:

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

Serious Eye Damage/Eye Irritation:

Product:	Based on available data, the classification criteria are met.

Respiratory or Skin Sensitization:

Product: Skin sensitizer: Based on available data, the classification criteria are not met.
Respiratory sensitizer: Based on available data, the classification criteria are not met.

Specified substance(s)

Boric acid

No sensitizing effect (guinea pig); OECD 406

Germ Cell Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

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

Aspiration Hazard

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

Other adverse effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

tert. alkanolamine, ionic equilibrium with acids	LC 50 (Fish, 96 h): 147 mg/l
tert. alkanolamine, ionic equilibrium with acids	LC 50 (Fish, 96 h): 29 mg/l
Boric acid	LC 50 (Fish, 96 h): 456 mg/l

Aquatic Invertebrates

Specified substance(s)

tert. alkanolamine, ionic equilibrium with acids	EC 50 (Water Flea, 48 h): 165 mg/l

tert. alkanolamine, ionic equilibrium with acids	EC 50 (Water Flea, 48 h): 73,7 mg/l
Boric acid	EC 50 (Water Flea, 48 h): 133 mg/l

Chronic Toxicity
Product: Based on available data, the classification criteria are not met.

Toxicity to Aquatic Plants
Specified substance(s)

tert. alkanolamine, ionic equilibrium with acids	EC 50 (Alga, 72 h): 44 mg/l
tert. alkanolamine, ionic equilibrium with acids	EC 50 (Alga, 72 h): 3,2 mg/l
Boric acid	EC 50 (Alga, 72 h): 229 mg/l

12.2 Persistence and Degradability

Biodegradation
Product: Not applicable for mixtures

12.3 Bioaccumulative potential
Product: Not applicable for mixtures

12.4 Mobility in soil:
Product: Not applicable for mixtures

12.5 Results of PBT and vPvB assessment: The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other adverse effects: No data available.

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

List of Waste (LoW) Codes

12 01 09*: machining emulsions and solutions free of halogens

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number:	–
14.2 UN Proper Shipping Name:	–
14.3 Transport Hazard Class(es)	
Class:	Non-dangerous goods
Label(s):	–
Hazard No. (ADR):	–
Tunnel restriction code:	–
14.4 Packing Group:	–
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IMDG

14.1 UN number or ID number:	–
14.2 UN Proper Shipping Name:	–
14.3 Transport Hazard Class(es)	
Class:	Non-dangerous goods
Label(s):	–
EmS No.:	–
14.3 Packing Group:	–
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IATA

14.1 UN number or ID number:	–
14.2 Proper Shipping Name:	–
14.3 Transport Hazard Class(es):	
Class:	Non-dangerous goods
Label(s):	–
14.4 Packing Group:	–
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

SECTION 15: Regulatory information

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

GB Regulations

The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019:
none

The Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020:
none

15.2 Chemical safety as- No Chemical Safety Assessment has been carried out.

sessment:

DIRECTIVE Control of Major Accident Hazards Regulations 2015:

Not applicable

SECTION 16: Other information

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Other information: The classification complies with the current GB lists; however, it has been supplemented with expert literature information and information provided by/about our company. The following evaluation methods were used: On the basis of test data; Calculation Method; Bridging Principle "Substantially similar mixtures"; Expert Judgement

Revision Date: 18.11.2022

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.