Metal working range

Lubricants for drilling, reaming, tapping and other metal working operations

Description

MOLYSLIP MCC, MWF and MWS is a range of high performance lubricants designed for severe metal working operations such as drilling, reaming and tapping. They are highly concentrated mixtures of lubricity and reactive extreme pressure and anti-wear additives.

All of the products in the range provide excellent surface finish to components and protect tooling from wear and damage. They are suitable for most drilling, reaming and tapping (spiral point, spiral flute and fluteless) operations on most metals. For maximum flexibility of use and to accommodate individual preference the products available are:

- MCC A soft paste compound suitable for brush or dip application
- MWF A medium viscosity fluid suitable for manual application or automatic lubricator systems
- MWS A convenient aerosol form of MWF

It is advised that compatibility is checked prior to use as the sulphurised extreme pressure additives may interact with some metals.

Features and benefits

- Excellent extreme pressure and anti-wear performance
- Maximises tool life in arduous operations
- Available in liquid, paste and aerosol form

Instructions for use

To obtain optimum performance MCC, MWF and MWS should be used as supplied. Apply either directly to the tool (while stationary) or to the hole to be tapped. Do not apply to rotating tooling.

Packaging

MCC compound:	450g tin and 4.5kg pail
MWF liquid:	350ml bottle and 5ltr
MWS spray:	400ml aerosol



MOLYSLIP



Technical data (typical values)

Property	Test method	MWF	MCC
Appearance	-	Brown liquid	Black soft paste
Kinematic viscosity at 40°C	MSTM27	54 cSt	-
Melt point	IP371	-	52°C
Unworked penetration	IP50	-	375 mm ⁻¹⁰
Copper corrosion	IP112		1b
4-ball weld load	IP239	>800kg	450kg
Silicone content	-		Nil

Results for MWS spray are the same as MWF liquid

Storage

Store MOLYSLIP MCC, MWF and MWS out of direct sunlight. Storage temperature should be controlled to between 5°C and 35°C.

The product information in this publication is based on knowledge and experience at the time of printing. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Issue date 06-17

Molyslip Atlantic Limited, 4 Huntsman Drive, Northbank Industrial Park, Irlam, Manchester, M44 5EG, UK Tel: +44 (0)161 804 4700 Fax: +44 (0)161 804 4701 enquiries@molyslip.co.uk www.molyslip.co.uk



According to Regulation (EC) No 1907/2006, Annex II, as amended.Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking	
1.1. Product identifier	
Product name	Molyslip MCC
1.2. Relevant identified uses o	f the substance or mixture and uses advised against
Identified uses	Lubricant.
Uses advised against	No specific uses advised against are identified.
1.3. Details of the supplier of the	he safety data sheet
Supplier	Molyslip
	4 Huntsman Drive
	Northbank Industrial Park
	Irlam
	Manchester
	M44 5EG
	+44 (0)161 804 4700
	+44 (0)161 804 4701
	compliance@molyslip.co.uk
1.4. Emergency telephone nur	nber
Emergency telephone	+44 (0)161 804 4700
SECTION 2: Hazards identifica	ation
2.1. Classification of the subst	ance or mixture
Classification (EC 1272/2008)	
Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified
2.2. Label elements	
Hazard statements	EUH208 Contains Oils, pine. May produce an allergic reaction.
2.3. Other hazards	
This product does not contain any substances classified as PBT or vPvB.	
SECTION 3: Composition/information on ingredients	

3.2. Mixtures

Chlorinated paraffin C18-30		30-60%
CAS number: 63449-39-8	EC number: 264-150-0	REACH registration number: 01- 2119494016-38-XXXX
Classification Not Classified		
Distillates (petroleum), solver	nt-dewaxed heavy paraffinic	10-30%
CAS number: 64742-65-0	EC number: 265-169-7	
Classification Not Classified		
The Full Text for all R-Phrases	s and Hazard Statements are Displayed in Section	n 16.
SECTION 4: First aid measure	25	
4.1. Description of first aid me	asures	
General information	If in doubt, get medical attention promptly. Show personnel.	w this Safety Data Sheet to the medical
Inhalation	Move affected person to fresh air and keep war breathing. Loosen tight clothing such as collar, a are severe or persist.	-
Ingestion	Rinse mouth thoroughly with water. Get medica induce vomiting unless under the direction of m	-
Skin contact	Rinse with water.	
Eye contact	Remove any contact lenses and open eyelids w attention if any discomfort continues.	vide apart. Rinse with water. Get medical
Protection of first aiders	First aid personnel should wear appropriate pro	tective equipment during any rescue.
4.2. Most important symptoms	and effects, both acute and delayed	
General information	The severity of the symptoms described will var length of exposure.	y dependent on the concentration and the
Inhalation	No specific symptoms known.	
Ingestion	No specific symptoms known.	
Skin contact	Prolonged contact may cause dryness of the sk	in.
Eye contact	No specific symptoms known. May be slightly in	ritating to eyes.
4.3. Indication of any immedia	te medical attention and special treatment neede	<u>d</u>
Notes for the doctor	Treat symptomatically.	
SECTION 5: Firefighting meas	sures	
5.1. Extinguishing media		
Suitable extinguishing media	The product is not flammable. Extinguish with a powder or water fog. Use fire-extinguishing mea	-
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Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire.

media

5.2. Special hazards arising from the substance or mixture		
Specific hazards	None known.	
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	
5.3. Advice for firefighters		
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.	
Special protective equipment for firefighters	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	e measures	
6.1. Personal precautions, pro	tective equipment and emergency procedures	
Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.	
6.2. Environmental precaution	<u>S</u>	
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.	
6.3. Methods and material for	containment and cleaning up	
Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.	
6.4. Reference to other section		
Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.	
SECTION 7: Handling and storage		
7.1. Precautions for safe hand	ling	
Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs.	

Keep container tightly sealed when not in use. Advice on general Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash occupational hygiene contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Storage class Chemical storage.

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

Occupational exposure limits

Oils, pine

Long-term exposure limit (8-hour TWA): WEL 560 mg/m³ WEL = Workplace Exposure Limit

Chlorinated paraffin C18-30 (CAS: 63449-39-8)

DNEL	Industry - Inhalation; Long term systemic effects: 2.35 mg/m³ Industry - Dermal; Long term systemic effects: 20 mg/kg/day
PNEC	- Fresh water; 0.0055 mg/l - Marine water; 0.0011 mg/l - STP; 60 mg/l

8.2. Exposure controls

Protective	equipment
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Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	No specific hand protection recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured paste.
Colour	Black. Dark brown.
Odour	Pine.
Solubility(ies)	Insoluble in water.

9.2. Other information	
SECTION 10: Stability and rea	activity
10.1. Reactivity	
Reactivity	See the other subsections of this section for further details.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
10.3. Possibility of hazardous	reactions
Possibility of hazardous reactions	No potentially hazardous reactions known.
10.4. Conditions to avoid	
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
10.5. Incompatible materials	
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
10.6. Hazardous decomposition	on products
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
SECTION 11: Toxicological int	formation
11.1. Information on toxicologi	cal effects
Acute toxicity - oral Notes (oral LD ₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - dermal Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity Carcinogenicity	Based on available data the classification criteria are not met.
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Reproductive toxicity	Deced on evolution date the classification extension are not part.
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity -	single exposure
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity -	repeated exposure
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard Aspiration hazard	Not relevant. Solid.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	No specific symptoms known.
Route of entry	Ingestion Inhalation Skin and/or eye contact
Target organs	No specific target organs known.
SECTION 12: Ecological Inform	mation
Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
12.1. Toxicity	
Toxicity	Based on available data the classification criteria are not met.
12.2. Persistence and degrada	ability
Persistence and degradability	The degradability of the product is not known.
12.3. Bioaccumulative potential	
Bioaccumulative potential	No data available on bioaccumulation.
12.4. Mobility in soil	
Mobility	No data available.
12.5. Results of PBT and vPvB assessment	
12.6. Other adverse effects	
Other adverse effects	None known.
SECTION 13: Disposal considerations	
13.1 Waste treatment methods	

13.1. Waste treatment methods

General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains.
SECTION 14: Transport info	rmation

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 Not applicable. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and e	environmental regulations/legislation specific for the substance or mixture
National regulations	Health and Safety at Work etc. Act 1974 (as amended).
	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
	Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
	EH40/2005 Workplace exposure limits.
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).
	Commission Regulation (EU) No 2015/830 of 28 May 2015.
	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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information	on
Abbreviations and acronyms used in the safety data sheet	 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LCso: Lethal Concentration to 50 % of a test population. LDso: Lethal Dose to 50% of a test population (Median Lethal Dose). ECso: 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Training advice	Only trained personnel should use this material.
Revision date	15/08/2017
Revision	4
Supersedes date	07/08/2017
SDS number	5082
Hazard statements in full	EUH208 Contains Oils, pine. May produce an allergic reaction.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



According to Regulation (EC) No 1907/2006, Annex II, as amended.Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of	the substance/mixture and of the company/undertaking
1.1. Product identifier	
Product name	Molyslip MWF
1.2. Relevant identified uses	of the substance or mixture and uses advised against
Identified uses	Lubricant.
Uses advised against	No specific uses advised against are identified.
1.3. Details of the supplier of	the safety data sheet
Supplier	Molyslip 4 Huntsman Drive Northbank Industrial Park Irlam Manchester M44 5EG UK +44 (0)161 804 4700 +44 (0)161 804 4701 compliance@molyslip.co.uk
1.4. Emergency telephone nu	Imber
Emergency telephone	+44 (0)161 804 4700
SECTION 2: Hazards identified	cation
2.1. Classification of the subs	tance or mixture
Classification (EC 1272/2008	-
Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified
2.2. Label elements	
Hazard statements	EUH208 Contains Oils, pine. May produce an allergic reaction.
2.3. Other hazards	
This product does not contain	any substances classified as PBT or vPvB.
SECTION 3: Composition/info	ormation on ingredients

3.2. Mixtures

Chlorinated paraffin C18-30		30-60%
CAS number: 63449-39-8	EC number: 264-150-0	REACH registration number: 01- 2119494016-38-XXXX
Classification Not Classified		
Distillates (petroleum), solver	nt-dewaxed heavy paraffinic	30-60%
CAS number: 64742-65-0	EC number: 265-169-7	
Classification Not Classified		
The Full Text for all R-Phrases	and Hazard Statements are Displayed in Section 1	6.
SECTION 4: First aid measure	95	
4.1. Description of first aid me	asures	
General information	If in doubt, get medical attention promptly. Show the personnel.	his Safety Data Sheet to the medical
Inhalation	Move affected person to fresh air and keep warm a breathing. Loosen tight clothing such as collar, tie are severe or persist.	-
Ingestion	Rinse mouth thoroughly with water. Get medical a induce vomiting unless under the direction of medi	-
Skin contact	Rinse with water.	
Eye contact	Remove any contact lenses and open eyelids wide attention if any discomfort continues.	e apart. Rinse with water. Get medical
Protection of first aiders	First aid personnel should wear appropriate protect	ctive equipment during any rescue.
4.2. Most important symptoms	and effects, both acute and delayed	
General information	The severity of the symptoms described will vary of length of exposure.	dependent on the concentration and the
Inhalation	No specific symptoms known.	
Ingestion	No specific symptoms known.	
Skin contact	Prolonged contact may cause dryness of the skin.	
Eye contact	No specific symptoms known. May be slightly irrita	ating to eyes.
4.3. Indication of any immedia	te medical attention and special treatment needed	
Notes for the doctor	Treat symptomatically.	
SECTION 5: Firefighting meas	sures	
5.1. Extinguishing media		
Suitable extinguishing media	The product is not flammable. Extinguish with alco powder or water fog. Use fire-extinguishing media	_

Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire.

media

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5.2. Special hazards arising fr	om the substance or mixture
Specific hazards	None known.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	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	e measures
6.1. Personal precautions, pro	tective equipment and emergency procedures
Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.
6.2. Environmental precaution	<u>s</u>
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.
6.3. Methods and material for	containment and cleaning up
Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
6.4. Reference to other section	ns
Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
SECTION 7: Handling and sto	rage
7.1. Precautions for safe hand	ling
Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.
Advice on general	Wash promptly if skin becomes contaminated. Take off contaminated clothing, Wash

Advice on general Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash occupational hygiene contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

	Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
Storage class	Chemical storage.

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

Occupational exposure limits

Oils, pine

Long-term exposure limit (8-hour TWA): WEL 560 mg/m³ WEL = Workplace Exposure Limit

Chlorinated paraffin C18-30 (CAS: 63449-39-8)

DNEL	Industry - Inhalation; Long term systemic effects: 2.35 mg/m³ Industry - Dermal; Long term systemic effects: 20 mg/kg/day
PNEC	- Fresh water; 0.0055 mg/l - Marine water; 0.0011 mg/l - STP; 60 mg/l

8.2. Exposure controls

Protective	equipment
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Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	No specific hand protection recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

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Appearance	Translucent. Liquid
Colour	Green.
Relative density	1.012 @ 20°C
Viscosity	52.6 @ 40°C

9.2. Other information	
SECTION 10: Stability and rea	activity
10.1. Reactivity	
Reactivity	See the other subsections of this section for further details.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
10.3. Possibility of hazardous	reactions
Possibility of hazardous reactions	No potentially hazardous reactions known.
10.4. Conditions to avoid	
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
10.5. Incompatible materials	
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
10.6. Hazardous decompositio	on products
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
SECTION 11: Toxicological int	formation
11.1. Information on toxicologi	cal effects
Acute toxicity - oral Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - dermal</u> Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity	Deceder and the last the class fraction with the and water to	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Reproductive toxicity - development	Based on available data the classification criteria are not met.	
Specific target organ toxicity -	single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicity -	repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard Aspiration hazard	Not relevant. Solid.	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	No specific symptoms known.	
Ingestion	No specific symptoms known.	
Skin contact	Prolonged contact may cause dryness of the skin.	
Eye contact	No specific symptoms known.	
Route of entry	Ingestion Inhalation Skin and/or eye contact	
Target organs	No specific target organs known.	
SECTION 12: Ecological Infor	mation	
Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.	
12.1. Toxicity		
Toxicity	Based on available data the classification criteria are not met.	
12.2. Persistence and degrada	ability	
Persistence and degradability	The degradability of the product is not known.	
12.3. Bioaccumulative potential		
Bioaccumulative potential	No data available on bioaccumulation.	
12.4. Mobility in soil		
Mobility	No data available.	
12.5. Results of PBT and vPvB assessment		
12.6. Other adverse effects		
Other adverse effects	None known.	
SECTION 13: Disposal considerations		
12.1. Wasta tractment methoda		

13.1. Waste treatment methods

General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains.
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 Not applicable. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and e	environmental regulations/legislation specific for the substance or mixture
National regulations	Health and Safety at Work etc. Act 1974 (as amended).
	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
	Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
	EH40/2005 Workplace exposure limits.
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).
	Commission Regulation (EU) No 2015/830 of 28 May 2015.
	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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information		
Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC ₅₀ : Lethal Concentration to 50 % of a test population. LD ₅₀ : Lethal Dose to 50% of a test population (Median Lethal Dose). EC ₅₀ : 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.	
Training advice	Only trained personnel should use this material.	
Revision date	15/08/2017	
Revision	5	
Supersedes date	07/08/2017	
SDS number	5081	
Hazard statements in full	EUH208 Contains Oils, pine. May produce an allergic reaction.	

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



According to Regulation (EC) No 1907/2006, Annex II, as amended.Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking	
1.1. Product identifier	
Product name	Molyslip MWS Spray
1.2. Relevant identified uses of	of the substance or mixture and uses advised against
Identified uses	Lubricant.
Uses advised against	No specific uses advised against are identified.
1.3. Details of the supplier of t	the safety data sheet
Supplier	Molyslip 4 Huntsman Drive Northbank Industrial Park Irlam Manchester M44 5EG UK +44 (0)161 804 4700 +44 (0)161 804 4701 compliance@molyslip.co.uk
1.4. Emergency telephone nu	mber
Emergency telephone	+44 (0)161 804 4700
SECTION 2: Hazards identific	cation
2.1. Classification of the subst	tance or mixture
Classification (EC 1272/2008)	-
Physical hazards Health hazards	Aerosol 1 - H222, H229
Environmental hazards	Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304
	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410
2.2. Label elements	
Pictogram	
Signal word	Danger

Hazard statements	 H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H410 Very toxic to aquatic life with long lasting effects. EUH208 Contains Oils, pine. May produce an allergic reaction.
Precautionary statements	 P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Contains	n-heptane
Supplementary precautionary statements	 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/ doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures		
n-heptane		30-60%
CAS number: 142-82-5	EC number: 205-563-8	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification		
Flam. Liq. 2 - H225		
Skin Irrit. 2 - H315		
STOT SE 3 - H336		
Asp. Tox. 1 - H304		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

Petroleum gases, liquefied		10-309
CAS number: 68476-85-7	EC number: 270-704-2	
Classification		
Flam. Gas 1 - H220		
Press. Gas, Liquefied - H280		
Distillates (petroleum), solvent-de	waxed heavy paraffinic	10-309
CAS number: 64742-65-0	EC number: 265-169-7	
Classification		
Not Classified		
Oils, pine		<19
CAS number: 8002-09-3	EC number: 692-006-0	REACH registration number: 01- 2119553062-49-XXXX
Classification		
Flam. Liq. 3 - H226		
Skin Irrit. 2 - H315		
Skin Sens. 1 - H317		
Asp. Tox. 1 - H304		
Aquatic Chronic 2 - H411		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures		
4.1. Description of first aid n	neasures	
General information	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.	
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.	
Ingestion	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.	
Skin contact	Rinse with water.	
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.	
4.2. Most important symptoms and effects, both acute and delayed		
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	

Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Redness. Irritating to skin.
Eye contact	May be slightly irritating to eyes. May cause discomfort.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	Treat symptomatically.
SECTION 5: Firefighting meas	sures
5.1. Extinguishing media	
Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. 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 fro	om the substance or mixture
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Vapours may form explosive mixtures with air.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	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	e measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. 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. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.
7.2. Conditions for safe storage	e, including any incompatibilities
Storage precautions	Store away from incompatible materials (see Section 10). Store locked up. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.
Storage class	Miscellaneous hazardous material storage.
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 Control	s/personal protection
8.1. Control parameters Occupational exposure limits n-heptane	

Long-term exposure limit (8-hour TWA): WEL 500

Petroleum gases, liquefied

Long-term exposure limit (8-hour TWA): WEL 1750 mg/m³ respirable dust Short-term exposure limit (15-minute): WEL 2180 mg/m³ respirable dust

Oils, pine

protection

Long-term exposure limit (8-hour TWA): WEL 560 mg/m³ WEL = Workplace Exposure Limit

n-heptane (CAS: 142-82-5)

DNEL	Workers - Dermal; systemic effects: 300 mg/kg/day
	Workers - Inhalation; systemic effects: 2085 mg/m ³
PNEC	- Fresh water; 0.03 mg/l
	- Marine water: 0.03 mg/l
	- Sediment (Freshwater); 4.4 mg/kg
	- Sediment (Marinewater); 4.4 mg/kg
	- Soil; 1.8 mg/kg
	- 30ll, 1.0 llig/kg
	Chlorinated paraffin C18-30 (CAS: 63449-39-8)
DNEL	Industry - Inhalation; Long term systemic effects: 2.35 mg/m ³
	Industry - Dermal; Long term systemic effects: 20 mg/kg/day
PNEC	- Fresh water; 0.0055 mg/l
	- Marine water; 0.0011 mg/l
	- STP: 60 mg/l
8.2. Exposure controls	
Protective equipment	
Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control
	worker exposure to airborne contaminants. Observe any occupational exposure limits for th

worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

Unless the assessment indicates a higher degree of protection is required, the following Eye/face protection protection should be worn: Tight-fitting safety glasses.

Hand protection Wear protective gloves. 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. To protect hands from chemicals, gloves should comply with European Standard EN374. 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. Frequent changes are recommended.

Other skin and body Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
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. 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 Cf 9.1. Information on basic phy	nemical Properties

Appearance	Aerosol.
Odour	Characteristic.
Flash point	< -60°C COC (Cleveland open cup).
Solubility(ies)	Immiscible with water.
9.2. Other information	
SECTION 10: Stability and re	activity
10.1. Reactivity	
Reactivity	See the other subsections of this section for further details.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
10.3. Possibility of hazardous	s reactions
Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidising agents.
10.4. Conditions to avoid	
Conditions to avoid	Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated
10.5. Incompatible materials	
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
10.6. Hazardous decompositi	ion products
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
SECTION 11: Toxicological in	nformation
11.1. Information on toxicolog	jical effects
Acute toxicity - oral	
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - dermal	
Notes (dermal LD ₅₀)	Based on available data the classification criteria are not met.

Acute toxicity - inhalation Notes (inhalation LC ₅₀)	Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data	Irritating.
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 2B Possibly carcinogenic to humans.
Reproductive toxicity Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity -	single exposure
Specific target organ toxicity - STOT - single exposure	<u>single exposure</u> STOT SE 3 - H336 May cause drowsiness or dizziness.
STOT - single exposure Target organs	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system
STOT - single exposure Target organs Specific target organ toxicity -	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system
STOT - single exposure Target organs Specific target organ toxicity -	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard Aspiration hazard	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system <u>repeated exposure</u> Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard Aspiration hazard	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic
STOT - single exposure Target organs <u>Specific target organ toxicity -</u> STOT - repeated exposure <u>Aspiration hazard</u> Aspiration hazard General information Inhalation	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard Aspiration hazard General information Inhalation Ingestion Skin contact	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Redness. Irritating to skin.
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard Aspiration hazard General information Inhalation Ingestion Skin contact Eye contact	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Redness. Irritating to skin. May be slightly irritating to eyes. May cause discomfort.
STOT - single exposure Target organs Specific target organ toxicity - STOT - repeated exposure Aspiration hazard Aspiration hazard General information Inhalation Ingestion Skin contact	STOT SE 3 - H336 May cause drowsiness or dizziness. Central nervous system repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect. Due to the physical nature of this product, it is unlikely that ingestion will occur. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Redness. Irritating to skin.

SECTION 12: Ecological Information

SECTION 12: Ecological Inform	nauon
12.1. Toxicity	
Toxicity	Aquatic Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.
12.2. Persistence and degrada	bility
Persistence and degradability	The degradability of the product is not known.
12.3. Bioaccumulative potentia	<u>u</u>
Bioaccumulative potential	No data available on bioaccumulation.
12.4. Mobility in soil	
Mobility	The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.
12.5. Results of PBT and vPvE	3 assessment
12.6. Other adverse effects	
Other adverse effects	None known.
SECTION 13: Disposal conside	erations
13.1. Waste treatment method	<u>S</u>
General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.
SECTION 14: Transport inform	nation
General	For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.
14.1. UN number	
UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950
14.2. UN proper shipping name	9
Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS (CONTAINS n-heptane, Oils, pine)
Proper shipping name (ICAO)	AEROSOLS

Proper shipping name (ADN) AEROSOLS

es)
2.1
5F
2.1
2.1
2.1
2.1

Transport labels



14.4. Packing group	
ADR/RID packing group	None
IMDG packing group	None
ADN packing group	None
ICAO packing group	None

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

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

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

SECTION 15: Regulatory information

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended).
	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
	Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
	EH40/2005 Workplace exposure limits.
	The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

EU legislationRegulation (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).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
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).
Council Directive of 20 May 1975 on the approximation of the laws of the Member States
relating to aerosol dispensers (75/324/EEC) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

Abbreviations and acronyms used in the safety data sheet	 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LCso: Lethal Concentration to 50 % of a test population. LDso: Lethal Dose to 50% of a test population (Median Lethal Dose). ECso: 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations	Aerosol = Aerosol
and acronyms	Skin Irrit. = Skin irritation STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Classification procedures according to Regulation (EC) 1272/2008	STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute)
Classification procedures according to Regulation (EC)	 STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. 1 - H304: STOT SE 3 - H336: Skin Irrit. 2 - H315: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method. Aerosol 1 - H222, H229: :
Classification procedures according to Regulation (EC) 1272/2008	 STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. 1 - H304: STOT SE 3 - H336: Skin Irrit. 2 - H315: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method. Aerosol 1 - H222, H229: : Expert judgement.
Classification procedures according to Regulation (EC) 1272/2008 Training advice	 STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. 1 - H304: STOT SE 3 - H336: Skin Irrit. 2 - H315: Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: Calculation method. Aerosol 1 - H222, H229: Expert judgement. Only trained personnel should use this material.
Classification procedures according to Regulation (EC) 1272/2008 Training advice Revision date	 STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. 1 - H304: STOT SE 3 - H336: Skin Irrit. 2 - H315: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method. Aerosol 1 - H222, H229: : Expert judgement. Only trained personnel should use this material. 21/11/2017

Hazard statements in full	 H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H229 Pressurised container: may burst if heated H280 Contains gas under pressure; may explode if heated. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction.
	 H317 May cause an allergic skin reaction. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. EUH208 Contains Oils, pine. May produce an allergic reaction.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.