



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 31221

DROSERA MS 150

Date of the previous version: 2017-01-09

Revision Date: 2017-10-31

Version 6.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	DROSERA MS 150
Number	308
Substance/mixture	Mixture***

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

Identified uses	Lubricant for miscellaneous applications, machine tools.
------------------------	--

1.3. Details of the supplier of the safety data sheet

Supplier	<p>A - TOTAL UK LIMITED 183 Eversholt St, Kings Cross London, NW1 1BU UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033</p> <p>B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71</p>
-----------------	---

For further information, please contact:

Contact Point	A - HSE
	B - HSE
E-mail Address	A - rm.gb-msds@total.co.uk
	B - rm.msds-lubs@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008

2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008

Signal word

None

Hazard Statements

None***

Precautionary statements

None***

Supplemental Hazard Statements

EUH210 - Safety data sheet available on request***

2.3. Other hazards**Physical-Chemical Properties**

Contaminated surfaces will be extremely slippery.***

Environmental properties

The product may form an oil film on the water surface that may stop the oxygen exchange.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture**Chemical nature**

Mineral oil of petroleum origin.***

Hazardous components

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	GHS Classification
(Z)-octadec-9-enylamine	204-015-5***	no data available	112-90-3	0.1-<0.25	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Asp. Tox. 1 (H304) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) STOT SE 3 (H335) STOT RE 2 (H373) Acute M factor = 10 Chronic M factor = 10
Ethyl acrylate	205-438-8***	01-2119459301-46	140-88-5	0.001-<0.002	STOT SE 3 (H335)

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

				5	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 3 (H331) Aquatic Chronic 3 (H412) Flam. Liq. 2 (H225)
--	--	--	--	---	--

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.***
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.***
Inhalation	Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.***
Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.***
Protection of first-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.***

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

Eye contact	Not classified.
Skin contact	Not classified. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.
Inhalation	Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Notes to physician	Treat symptomatically.
---------------------------	------------------------

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media**Suitable extinguishing media** Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.*****Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.***5.2. Special hazards arising from the substance or mixture**Special hazard** Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Phosphorous oxides. Nitrogen oxides (NO_x).***5.3. Precautions for fire-fighters**Special protective equipment for fire-fighters** Wear self-contained breathing apparatus and protective suit.**Other information** Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures**General Information** Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.***6.2. Environmental precautions**General Information** Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.***6.3. Methods and material for containment and cleaning up**Methods for containment** Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.*****Methods for cleaning up** Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.***6.4. Reference to other sections**Personal protective equipment** See Section 8 for more detail.

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

Waste treatment See section 13.**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.***

Prevention of fire and explosion Take precautionary measures against static discharges.***

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment, work area and clothing. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.***

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a bonded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.***

Materials to avoid Strong oxidising agents.***

7.3. Specific use(s)

Specific use(s) No information available.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1. Control parameters**

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Chemical Name	European Union	The United Kingdom	Ireland
Ethyl acrylate 140-88-5	STEL 10 ppm STEL 42 mg/m ³ TWA 5 ppm TWA 21 mg/m ³ ***	STEL 10 ppm STEL 42 mg/m ³ TWA 5 ppm TWA 21 mg/m ³ ***	TWA 5 ppm TWA 20 mg/m ³ STEL 10 ppm STEL 41 mg/m ³ Skin***

Legend See section 16

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

Derived No Effect Level (DNEL)**DNEL Worker (Industrial/Professional)**

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Ethyl acrylate 140-88-5		0.92 mg/m ³ (dermal)		21 mg/m ³ (inhalation)

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Ethyl acrylate 140-88-5		0.92 mg/m ³ (dermal)		2.5 mg/m ³ (inhalation)

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Ethyl acrylate 140-88-5	0.00272 mg/l fw 0.00027 mg/l mw 0.0011 mg/l or	0.0213 mg/kg sediment dw fw 0.0213 mg/kg sediment dw mw	1 mg/kg soil dw		10 mg/l	0.01 g/kg food

8.2. Exposure controls**Occupational Exposure Controls****Engineering measures**

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.***

Personal protective equipment**General Information**

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.***

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***

Eye protection

If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.***

Hand protection

Hydrocarbon-proof gloves. Nitrile rubber. Fluorinated rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency.***

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

Environmental exposure controls**General Information**

The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance		Clear	
Colour		brown	
Physical state @20°C		liquid	
Odour		characteristic	
Odour Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range		Not applicable	
Boiling point/boiling range		No information available	
Flash point	> 250 °C > 482 °F		ISO 2592 ISO 2592
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Upper		No information available	
Lower		No information available	
Vapour pressure		No information available	
Vapour density		No information available	
Relative density	0.888 - 0.902	@ 15 °C	ISO 3675
Density	888 - 902 kg/m ³	@ 15 °C	ISO 3675
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available***	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	142.5 - 157.5 mm ² /s	@ 40 °C	ISO 3104
Explosive properties	Not explosive		
Oxidising properties	Not applicable		
Possibility of hazardous reactions	No information available		

9.2. Other information

Freezing point	No information available
-----------------------	--------------------------

Section 10: STABILITY AND REACTIVITY**10.1. Reactivity****General Information**

None under normal processing.***

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.***

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.***

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.***

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Other decomposition products. Phosphorous oxides. Nitrogen oxides (NOx).***

Section 11: TOXICOLOGICAL INFORMATION11.1. Information on toxicological effects**Acute toxicity Local effects Product Information**

Skin contact . Not classified. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.

Eye contact . Not classified.

Inhalation . Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.

Ingestion . Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

ATEmix (oral)	> 5,000.00
ATEmix (dermal)	> 5,000.00
ATEmix (inhalation-gas)	> 20,000.00
ATEmix (inhalation-dust/mist)	> 5.00
ATEmix (inhalation-vapour)	> 20.00

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
---------------	-----------	-------------	-----------------

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

(Z)-octadec-9-enylamine	LD50 1689 mg/kg (Rat)	LD50 > 2000 mg/kg (Rat)	
Ethyl acrylate	LD50 1120 mg/kg bw (rat)	LD50 3049 mg/kg bw (rat)	LC50 (4h) < 9.137 mg/l (rat - vapour)

Sensitisation

Sensitisation Not classified as a sensitizer.

Specific effects

Carcinogenicity This product is not classified carcinogenic.
Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Repeated dose toxicity

Subchronic Toxicity No information available.

Target Organ Effects (STOT)

Target Organ Effects (STOT) No information available.

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Section 12: ECOLOGICAL INFORMATION**12.1. Toxicity**

Not classified. An additive present in the composition of this product would require a classification, however available experimental data indicate that no classification is required.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
(Z)-octadec-9-enylamine 112-90-3	EC50 (96h) 0.03 mg/l (Algae)	EC50 (48h) 0.011 mg/l (Daphnia magna)	LC50 (96h) 0.11 mg/l (Fish)	
Ethyl acrylate 140-88-5	EC50 (72h) 5.9 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (96h) 5.2 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (72h) 2.65 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EC50 (48h) 7.9 mg/l (Daphnia magna)	LC50 (96h) 2 mg/l (Cyprinodon variegatus) LC50 (96h) 4.6 mg/l (Oncorhynchus mykiss (96h) LC50 (96h) 2.31 - 2.7 mg/l (Pimephales promelas) LC50 (96h) 10.0 - 22.0 mg/l (Leuciscus idus)	

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

	EC50 (72h) 48 mg/l (Desmodesmus subspicatus)			
--	---	--	--	--

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Ethyl acrylate 140-88-5	NOEC (96h) < 3.8 mg/l (Pseudokirchnerella subcapitata - OECD 201) NOEC (96h) < 1.8 mg/l (Pseudokirchnerella subcapitata - OECD 201)	NOEC (21d) 0.19 mg/l (Daphnia magna) LOEC (21d) 0.45 mg/l (Daphnia magna) EC (21d) 0.5 mg/l (Daphnia magna)	NOEC (96h) 0.62 mg/l (Cyprinodon variegatus)	

Effects on terrestrial organisms

No information available.***

12.2. Persistence and Degradability**General Information**

No information available.

12.3. Bioaccumulative potential**Product Information**

No information available.***

logPow

No information available.***

Component Information

No information available.***

12.4. Mobility in soil**Soil**

Given its physical and chemical characteristics, the product generally shows low soil mobility.***

Air

Loss by evaporation is limited.***

Water

The product is insoluble and floats on water.***

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

No information available.

12.6. Other adverse effects**General Information**

No information available.***

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products	Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.***
EWC Waste Disposal No	The following Waste Codes are only suggestions: 13 02 05. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

<u>ADR/RID</u>	not regulated
<u>IMDG/IMO</u>	not regulated
<u>ICAO/IATA</u>	not regulated
<u>ADN</u>	not regulated

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

15.3. National regulatory information

The United Kingdom

Version EUUK



SDS # : 31221

DROSEMS 150

Revision Date: 2017-10-31

Version 6.01

- Avoid exceeding occupational exposure limits (see section 8).

Ireland

- Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3**

H225 - Highly flammable liquid and vapour

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H312 - Harmful in contact with skin

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ digestive system/ central nervous system through prolonged or repeated exposure if swallowed

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

Legend Section 8

Version EUUK



SDS # : 31221

DROSERA MS 150

Revision Date: 2017-10-31

Version 6.01

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+

Sensitiser

**

Hazard Designation

M:

Mutagen

*

Skin designation

C:

Carcinogen

R:

Toxic to reproduction

Revision Date:

2017-10-31

Revision Note

*** Indicates updated section. &. 1.***

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet

Version EUUK