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## MATERIAL SAFETY DATA SHEET

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier:

**Agrosurf<sup>®</sup> GF**

**Product name** Agrosurf GF  
**EC number** 232-391-0  
**CAS number** 8013-07-8  
**Product description** Surfactant

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

**Product use:** Surfactant

#### 1.3 Details of the supplier of the safety data sheet

**Lankem Ltd**  
Charles Street  
Dukinfield  
Cheshire  
UNITED KINGDOM  
SK16 4SD

Telephone +44 (0) 161 343 3355  
Fax +44 (0) 161 343 3366  
E-mail technical@lankem.co.uk

#### 1.4 Emergency telephone number

Day 0161 343 3355 Night 07932 007892

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**  
Not classified

**Classification according to Directive 67/548/EEC [DSD]**  
Not classified

#### 2.2 Label elements

**Hazard pictograms: None**

Signal word: No signal word  
Hazard statements: No known significant effects or critical hazards

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### Precautionary statements

Prevention:	Not applicable
Response:	Not applicable
Storage:	Not applicable
Disposal:	Not applicable
Supplemental label elements:	Not applicable

### Special packaging requirements

Containers to be fitted with child resistant fastenings:	Not applicable
Tactile warning of danger:	Not applicable

### 2.3 Other hazards

**Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006 Annex XIII**

PBT: Not available

**Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006 Annex XIII**

vPvB: Not available

### Other hazards which do not result in classification

Not applicable

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substances

<b>Composition</b>	: Epoxidised soya bean oil	
<b>CAS No</b>	: 8013-07-8	
<b>EC</b>	: 232-391-0	
<b>Concentration</b>	: 100%	
<b>Classification:</b>	<b>(EC) 1272/2008 [CLP/GHS] :</b>	Not classified
	<b>67/548/EEC:</b>	Not classified

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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- Skin:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Eyes:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Ingestion:** Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Protection of first –aiders

No action shall be taken involving any personal risk or without suitable training.

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

#### Potential acute health effects

- Eye contact: No known significant effects or critical hazards  
Inhalation: No known significant effects or critical hazards  
Skin contact: No known significant effects or critical hazards  
Ingestion: No known significant effects or critical hazards

#### Over-exposure signs/symptoms

- Eye contact: No specific data  
Inhalation: No specific data  
Skin contact: No specific data  
Ingestion: No specific data

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

**Notes to physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments:** Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

<b>SECTION 5: FIRE-FIGHTING MEASURES</b>
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### 5.1 Extinguishing media

**Suitable extinguishing media:** Water mist, foam, carbon dioxide and dry powder

**Unsuitable extinguishing media:** None known

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### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture:** In a fire or if heated, a pressure increase will occur and the container may burst

**Hazardous thermal decomposition products:** Decomposition products may include carbon dioxide and carbon monoxide

### 5.3 Advice for fire-fighters

**Special precautions for fire-fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN469 will provide a basic level of protection for chemical incidents.

<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>
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### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders:** If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions:** Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up:

**Small spill:** Stop leak if without risk. Move containers from spill area. Spillages should be contained by and covered by sand, earth or other similar absorbent material. The mixture can then be shovelled into containers. The area can then finally be cleaned with detergent and water. Dispose of via a licensed waste disposal contractor.

**Large spill:** Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant, or contain and collect spillage. Use a non-

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combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth to collect spillage and place in a container for disposal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 6.4 Reference to other sections:

See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

**Protective measures:** Put on appropriate protective equipment (see section 8).

### Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional advice on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities:

Store between 5 and 40°C. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool well ventilated area, away from incompatible materials (see section 10) and food and drink. Always keep container tightly closed and sealed until ready for use. Containers that have been opened must be tightly resealed and held in an upright position to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s): Industrial applications:

This product has been designed to operate as a surfactant and may offer one or more of the following properties: wetting, foaming, emulsification, dispersing and detergency.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Occupational exposure limits:** None

**Recommended monitoring procedures:** If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to

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use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels:** No DELs available

**Predicted effect concentrations** No PECs available

### 8.2 Exposure Controls

**Appropriate engineering controls:**

No special ventilation requirements.

**Occupational exposure controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

**Eye protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

**Body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if there is inadequate ventilation. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Environmental exposure controls:** 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.

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<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Pale yellow liquid, solidifies at low temperature
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not available
<b>pH:</b>	n/a
<b>Melting point/freezing point:</b>	not available
<b>Initial Boiling point and boiling range:</b>	>200°C
<b>Flash point:</b>	>150°C closed cup
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid/gas):</b>	Not available
<b>Upper/lower flammability or explosive limits:</b>	Not available
<b>Vapour pressure:</b>	Low because of it's high boiling point
<b>Vapour density:</b>	Not available
<b>Relative density:</b>	0.995 @ 25°C
<b>Solubility:</b>	Not soluble in water
<b>Partition coefficient n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	350 centistokes @25°C
<b>Explosive properties:</b>	Not available
<b>Oxidising properties:</b>	Not available

### 9.2 Other information

Not available

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### SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability:** The product is stable if stored and handled as prescribed/indicated.

**10.3 Possibility of hazardous reactions:**

Under normal conditions of storage and use, hazardous reactions will not occur. However, combustion can produce oxides of carbon

**10.4 Conditions to avoid:** Avoid excessive heat for prolonged periods of time.

**10.5 Incompatible materials:** Avoid contact with oxidising agents

**10.6 Hazardous decomposition products:**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposition will occur at temperatures of 150°C and above

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity

**Analysis:** - LD50 (oral)

**Species:** - rat

**Dose:** - 21-40g/kg

**Analysis:** - LD50 (dermal)

**Species:** - rabbit

**Dose:** - >20g/kg

Please note that Lankem do not carry out testing on animals – this data is in the public domain

**Irritation/Corrosion** may cause minor irritation on skin contact

**Sensitiser**

**Germ cell mutagenicity**

**Carcinogenicity**

**Reproductive toxicity**

**Teratogenicity**

**Specific target organ toxicity (single exposure)**

**Specific target organ toxicity (repeated exposure)**

**Aspiration hazard**

Not available

#### Information on the likely routes of exposure and health effects:



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**Inhalation:** No known significant effects or critical hazards  
**Ingestion:** No known significant effects or critical hazards  
**Skin contact:** No known significant effects or critical hazards  
**Eye contact:** No known significant effects or critical hazards

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation:** No specific data  
**Ingestion:** No specific data  
**Skin contact:** No specific data  
**Eye contact:** No specific data

**Delayed and immediate effects and also chronic effects from short and long-term exposure**

Not available

**Information on acute and chronic health effects**

**General**  
**Carcinogenicity**  
**Mutagenicity**  
**Teratogenicity**  
**Developmental effects**  
**Fertility effects**

No known significant effects or critical hazards

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Toxicity to fish: LC50 (96 h) 48 hours 900 mg/l  
 Aquatic invertebrates: EC50 (48 h) 24 hours >100 mg/l

**12.2 Persistence and degradability**

Product/ingredient	Aquatic half life	Photolysis	Biodegradability
Epoxidised Soya bean oil	-	-	Readily

**12.3 Bioaccumulative potential** Not available

**12.4 Mobility in soil** soil/water partition coefficient and mobility information not available

**12.5 Results of PBT and vPvB assessment**

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Not available

**12.6 Other adverse effects** Not regarded as dangerous for the environment

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**Method of disposal:** The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Hazardous waste:** No

**European waste Catalogue:** This product is not regarded as hazardous waste within the present knowledge of the supplier

#### Packaging

**Methods of disposal:** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions:** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14: TRANSPORT INFORMATION

The following apply to all four transport modes (ADR/RID, ADN/ADNR, IMDG, IATA):

**14.1 UN Number:** Not regulated

**14.2 UN proper shipping name:** Not applicable

**14.3 Transport hazard class:** Not applicable

**14.4 Packing group:** Not applicable

**14.5 Environmental hazards:** None

**14.6 Special precautions for user:** Not available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not applicable

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### SECTION 15: REGULATORY INFORMATION

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

**EU Regulation (EC) No. 1907/2006 (REACH)  
Annex XIV – List of substances subject to authorisation  
Substances of very high concern**

None of the components are listed

**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

Not applicable

#### Other EU regulations

<b>Europe inventory:</b>	All components are listed or exempted
<b>Black List chemicals:</b>	Not listed
<b>Priority List chemicals:</b>	Not listed
<b>Integrated pollution prevention and control list (IPPC) – Air:</b>	Not listed
<b>Integrated pollution prevention and control list (IPPC) – Water:</b>	Not listed

#### National Regulations

**References:** The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974.

#### International regulations

<b>Chemical Weapons Convention List Schedule I Chemicals:</b>	Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals:</b>	Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals:</b>	Not listed

**15.2 Chemical safety Assessment:** Not yet completed

### SECTION 16: OTHER INFORMATION

#### Version 1

**Date of Issue: June 2012**

This MSDS has been prepared according to REACH regulations ANNEX II

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This information only concerns the above-mentioned product as supplied and may not be valid if used with other product(s) or in any process. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.