

SDS no. MI10653  
Version 6  
Revision date 15/Jan/2015  
Supersedes date 06/Nov/2012



## Safety Data Sheet DUAL-FLO<sup>+</sup> HT

### 1. Identification of the substance/preparation and of the Company/undertaking

#### 1.1 Product identifier

**Product name** DUAL-FLO<sup>+</sup> HT  
**Product code** MI10653  
**REACH registration name** Exempt

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

**Recommended Use** Filtration-control.  
**Uses advised against** Consumer use

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

**Supplier**  
M-I Australia Pty Ltd  
Level 5  
256 St. George Terrace  
Perth  
WA 6000  
T= 08 9440 2900  
MISDS@slb.com

#### 1.4 Emergency Telephone Number

**Emergency telephone** - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to (EC) No. 1272/2008**

**Health hazards** Not classified  
**Environmental hazards** Not classified  
**Physical Hazards** Not classified

#### 2.2 Label elements

**Signal word**  
None

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

**Indication of danger**

Not classified

**Contains**

Modified starch

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

**2.3 Other data**

Not classified as PBT/vPvB by current EU criteria

**Australian statement of hazardous/dangerous nature**

Classified as Non-Hazardous according to the criteria of NOHSC.  
NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

**3. Composition/information on ingredients**

**3.1 Substances**

| Component       | EC-No.     | CAS-No      | Weight % - range | Classification (67/548) | Classification (Reg. 1272/2008) | REACH registration number |
|-----------------|------------|-------------|------------------|-------------------------|---------------------------------|---------------------------|
| Modified starch | Not Listed | Proprietary | 60-100           | -                       | Not classified                  | No data available         |

**3.2 Mixtures**

Not Applicable

**4. First aid measures**

**4.1 First-Aid Measures**

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.   |
| <b>Ingestion</b>    | Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.                        |
| <b>Skin contact</b> | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.                               |
| <b>Eye contact</b>  | Remove contact lenses. Promptly wash eyes with lots of water while lifting eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |

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

**General advice** The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

**Main symptoms**

**Inhalation** Please see Section 11. Toxicological Information for further information.

**Ingestion** Please see Section 11. Toxicological Information for further information.

**Skin contact** Please see Section 11. Toxicological Information for further information.

**Eye contact** Please see Section 11. Toxicological Information for further information.

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

**Notes to physician** Treat symptomatically.

**5. Fire-fighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Water Fog, Alcohol Foam, CO<sub>2</sub>, Dry Chemical.

**Extinguishing media which shall not be used for safety reasons**

None known.

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

**Unusual fire and explosion hazards**

Dust may form explosive mixture in air.

**Hazardous combustion products**

Fire or high temperatures create: Carbon oxides (CO<sub>x</sub>).

**5.3 Advice for firefighters**

**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

**Special Fire-Fighting Procedures**

Containers close to fire should be removed immediately or cooled with water.

**6. Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. If spilled, take caution, as material can cause surfaces to become very slippery. Use personal protective equipment. See also section 8.

**6.2 Environmental precautions**

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

**Environmental exposure controls**

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

**6.3 Methods and materials for containment and cleaning up**

**Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.

**6.4 Reference to other sections**

See section 13 for more information.

**7. Handling and storage**

**7.1 Precautions for safe handling**

**Handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid dust formation. If spilled, take caution, as material can cause surfaces to become very slippery.

**Hygiene measures**

Use good work and personal hygiene practices to avoid exposure. Do not eat, drink or smoke when using this product. Wash hands before eating, drinking or smoking. Remove contaminated clothing.

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures/precautions** Ensure adequate ventilation. Keep airborne concentrations below exposure limits. Keep away from heat, sparks, and flame.

**Storage precautions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Avoid contact with: Strong oxidizing agents

**Storage class** Chemical storage.

**Packaging material** Use specially constructed containers only

**7.3 Specific end uses**

See Section 1.2.

**8. Exposure controls/personal protection**

**8.1 Control parameters**

**Exposure limits** No biological limit allocated

| Component       | EU OEL         | Austria        | Australia  | Denmark        |
|-----------------|----------------|----------------|--|----------------|
| Modified starch | Not determined | Not determined | 10 mg/m <sup>3</sup> TWA<br>(containing no asbestos<br>and <1% crystalline<br>silica, inspirable dust) | Not determined |

| Component       | Finland        | France         | Germany        | Hungary        |
|-----------------|----------------|----------------|----------------|----------------|
| Modified starch | Not determined | Not determined | Not determined | Not determined |

| Component       | New Zealand              | Italy          | Netherlands    | Norway         |
|-----------------|--------------------------|----------------|----------------|----------------|
| Modified starch | 10 mg/m <sup>3</sup> TWA | Not determined | Not determined | Not determined |

| Component       | Poland         | Portugal                 | Romania        | Russia                   |
|-----------------|----------------|--------------------------|----------------|--------------------------|
| Modified starch | Not determined | 10 mg/m <sup>3</sup> TWA | Not determined | 10 mg/m <sup>3</sup> MAC |

  

| Component       | Spain                       | Switzerland                        | Turkey         | UK  |
|-----------------|-----------------------------|------------------------------------|----------------|---|
| Modified starch | 10 mg/m <sup>3</sup> VLA-ED | 3 mg/m <sup>3</sup> MAK respirable | Not determined | 30 mg/m <sup>3</sup> STEL calculated total inhalable<br>12 mg/m <sup>3</sup> STEL calculated respirable<br>10 mg/m <sup>3</sup> TWA total inhalable<br>4 mg/m <sup>3</sup> TWA respirable |

## 8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

### Engineering measures to reduce exposure

Ensure adequate ventilation. Mechanical ventilation or local exhaust ventilation is required.

### Personal protective equipment

#### Eye protection

It is good practice to wear goggles when handling any chemical. Tightly fitting safety goggles.

#### Hand protection

Use protective gloves made of: Nitrile, Neoprene, Frequent change is advisable.

#### Respiratory protection

No personal respiratory protective equipment normally required, In case of insufficient ventilation wear suitable respiratory equipment, Half mask with a particle filter P2 (European Norm EN 143 = former DIN 3181).

#### Skin and body protection

Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.

### Hygiene measures

Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing before re-use.



## 9. Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

|                       |                   |
|-----------------------|-------------------|
| <b>Physical state</b> | Solid             |
| <b>Appearance</b>     | Powder Dust       |
| <b>Odor</b>           | Mild              |
| <b>Color</b>          | White - Off-white |
| <b>Odor threshold</b> | Not applicable    |

| <u>Property</u>              | <u>Values</u>              | <u>Remarks</u> |
|------------------------------|----------------------------|----------------|
| pH                           | No information available   |                |
| pH @ dilution                | 5.0 - 8.0                  | @4%            |
| Melting/freezing point       |                            |                |
| Boiling point/range          | No information available   |                |
| Flash point                  | No information available   |                |
| Evaporation rate (BuAc =1)   |                            |                |
| Flammability (solid, gas)    | Not Applicable             |                |
| Flammability Limits in Air   |                            |                |
| Upper flammability limit     | Not applicable             |                |
| Lower flammability limit     | Not applicable             |                |
| Vapor pressure               | No information available   |                |
| Vapor density                | No information available   |                |
| Specific gravity             | No information available   |                |
| Bulk density                 | 30 - 45 lb/ft <sup>3</sup> |                |
| Relative density             | 1.5 sg                     | @ 20°C.        |
| Water solubility             | Soluble in water           |                |
| Solubility in other solvents | No information available   |                |
| Autoignition temperature     | No information available   |                |
| Decomposition temperature    | No information available   |                |
| Kinematic viscosity          |                            |                |
| Dynamic viscosity            | No information available   |                |
| Log Pow                      | No information available   |                |
| Explosive properties         | No information available   |                |
| Oxidizing properties         | No information available   |                |

**9.2 Other information**

|                         |                          |
|-------------------------|--------------------------|
| <b>Pour point</b>       | No information available |
| <b>Molecular weight</b> | No information available |
| <b>VOC content(%)</b>   | No information available |
| <b>Density</b>          | No information available |

**10. Stability and reactivity**

**10.1 Reactivity**

No specific reactivity hazards associated with this product.

**10.2 Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3 Possibility of Hazardous Reactions**

**Hazardous polymerization**

Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

Protect from moisture. Avoid dust formation. Heat, flames and sparks.

**10.5 Incompatible materials**

Strong oxidizing agents.

**10.6 Hazardous decomposition products**

See also section 5.2.

**11. Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

|                               |  |
|-------------------------------|--|
| <b>Inhalation</b>             | Inhalation of dust in high concentration may cause irritation of respiratory system. |
| <b>Eye contact</b>            | May cause slight irritation.   |
| <b>Skin contact</b>           | Prolonged contact may cause redness and irritation.                                  |
| <b>Ingestion</b>              | Ingestion may cause stomach discomfort.  |
| <b>Unknown acute toxicity</b> | .  |

| Component       | LD50 Oral         | LD50 Dermal       | LC50 Inhalation   |
|-----------------|-------------------|-------------------|-------------------|
| Modified starch | No data available | No data available | No data available |

**Sensitization** This product does not contain any components suspected to be sensitizing.

**Mutagenic effects** This product does not contain any known or suspected mutagens.

**Carcinogenicity** This product does not contain any known or suspected carcinogens.

**Reproductive toxicity** This product does not contain any known or suspected reproductive hazards.

**Routes of exposure** None known.

**Routes of entry** No route of entry noted.

**Specific target organ toxicity (single exposure)** Not classified

**Specific target organ toxicity (repeated exposure)** Not classified.

**Aspiration hazard** No hazard from product as supplied.

**12. Ecological information**

**12.1 Toxicity**

The product component(s) are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Listed on PLONOR list of OSPAR

**Toxicity to algae**

This product is not considered toxic to algae.

**Toxicity to fish**

This product is not considered toxic to fish.

**Toxicity to daphnia and other aquatic invertebrates**

This product is not considered toxic to invertebrates.

| Component       | Toxicity to fish         | Toxicity to algae        | Toxicity to daphnia and other aquatic invertebrates |
|-----------------|--------------------------|--------------------------|---|
| Modified starch | No information available | No information available | No information available                            |

**12.2 Persistence and degradability**

Product is biodegradable.

**12.3 Bioaccumulative potential**

Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility**

Soluble in water.

**12.5 Results of PBT and vPvB assessment**

Not classified as PBT/vPvB by current EU criteria.

**12.6 Other adverse effects.**

None known.

**13. Disposal considerations**

**13.1 Waste treatment methods**

**Waste from residues / unused products**

Dispose of in accordance with local regulations.



|                               |   |
|-------------------------------|---|
| <b>Contaminated packaging</b> | Empty containers should be taken for local recycling, recovery or waste disposal.   |
| <b>EWC Waste disposal No.</b> | 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. The following Waste Codes are only suggestions: EWC waste disposal No: 07 01 99. |

**14. Transport information**

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA,ADR/RID/ADG).

**14.1 UN Number**  
Not regulated

**14.2 Proper shipping name**  
Not regulated

|                                   |               |
|-----------------------------------|---------------|
| <b>14.3 Hazard class(es)</b>      |               |
| <b>ADR/RID/ADN Hazard class</b>   | Not regulated |
| <b>IMDG Hazard class</b>          | Not regulated |
| <b>ICAO Hazard class/division</b> | Not regulated |

|                                  |               |
|----------------------------------|---------------|
| <b>14.4 Packing group</b>        |               |
| <b>ADR/RID/ADN Packing Group</b> | Not regulated |
| <b>IMDG Packing group</b>        | Not regulated |
| <b>ICAO Packing group</b>        | Not regulated |

**14.5 Environmental hazard**  
No

**14.6 Special precautions**  
Not Applicable

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Please contact MISDS@slb.com for info regarding transport in Bulk.

**15. Regulatory information**

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

**Germany, Water Endangering Classes (VwVwS)**      Water endangering class = 1

**Australian Standard for the Uniform Scheduling of Drugs and Poisons**  
No Poisons Schedule number allocated

**New Zealand hazard classification**      No classification

**HSNO approval no.**      Not required.

**Group number**      Not required.

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). 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), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].

National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].

National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Dutch Mining Regulations: In accordance with Mining Regulations 9.2 and Chapter 4 of the Working Conditions Decree.

International inventories

|                                    |          |
|------------------------------------|----------|
| USA (TSCA)                         | Complies |
| European Union (EINECS and ELINCS) | Complies |
| Canada (DSL)                       | Complies |
| Philippines (PICCS)                | Complies |
| Japan (ENCS)                       | Complies |
| China (IECSC)                      | Complies |
| Australia (AICS)                   | Complies |
| Korean (KECL)                      | Complies |
| New Zealand (NZIoC)                | Complies |

Contact REACH@miswaco.slb.com for REACH information.

### 15.2 Chemical Safety Report

No information available

## 16. Other information

|   |  |
|---|--|
| <b>Prepared by</b>                              | Global Chemical Regulatory Compliance (GCRC) , Anne Karin (Anka) Fosse   |
| <b>Supersedes date</b>                          | 06/Nov/2012  |
| <b>Revision date</b>                            | 15/Jan/2015  |
| <b>Version</b>                                  | 6  |
| <b>The following sections have been revised</b> | This SDS have been made in a new database and therefore a new layout. No changes with regard to classification have been made, Updated according to GHS/CLP. |

**Text of R phrases mentioned in Section 2 and 3**

Not classified

**Full text of H-Statements referred to under sections 2 and 3**

Not classified

†A mark of M-I L.L.C.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.