

MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: DOWFROTH* 250 FLOTATION FROTHER

Manufacturer: Dow Deutschland Inc.

Company: Mining Commodities Ltd
46 Great Pulteney Street
Bath BA2 4DR
United Kingdom

Emergency telephone No.: + 44 1225 331514

Dow: + 31 115 694 982 (Ask for medical department)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation:

	Symbol	CAS #	EINECS #
Polypropylene glycol methyl ether	Xn; R22-36	037286-64-9	Polymer

3. HAZARDS IDENTIFICATION

Harmful if swallowed. Irritating to eyes. This product is not hazardous to the environment according to EU criteria.

4. FIRST AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to medical facility

Skin Contact: Wash off in flowing water or shower

Eye Contact: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

Ingestion: Induce vomiting if large amounts are ingested. Consult medical personnel

Note to Physician: No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water fog, carbon dioxide, alcohol resistant foam, dry chemical

Hazardous Combustion Products: None known. Complete combustion will give carbon dioxide and water

Special protective equipment: Wear positive pressure self-contained breathing apparatus and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves)

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Wear appropriate safety clothing (see Section 8)
- Environmental precautions:** Prevent contamination of surface and groundwater
- Methods for cleaning up:** Small spills: Soak up with absorbent material and place in container for disposal
Large spills: Dike and pump into appropriate containers

7. HANDLING AND STORAGE

- Handling:** Avoid eye and skin contact
- Storage:** Do not store in full sunlight. Keep unused containers sealed

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure guidelines:** None established
- Engineering measures to Reduce exposure:** Good general ventilation should be sufficient. Local exhaust may be necessary for some operations
- Personal protection equipment:**
- **Respiratory protection:** For most conditions, no respiratory protection should be needed; however, in misty atmospheres use an approved mist respirator. If respiratory irritation is experienced, use an approved air-purifying respirator.
 - **Skin protection:** When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Selection of specific items, such as: gloves, boots, apron or full body suit will depend on operation
 - **Eye/Face Protection:** Use chemical goggles
- Hygiene measures:** Wash contaminated clothing before reuse. Wash before eating

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Clear liquid
Colour:	Amber to brown
Odour:	Ethereal
pH:	not determined
Boiling point/range (°C):	282
Freezing point/range (°C):	-50
Flash point (°C):	143 (PMCC)
Autoignition temperature (°C):	not determined
Flammability:	not determined
Vapour pressure (mbar):	<0.01
Density (g/cm³ @25°C):	0.97
Water solubility:	miscible in all proportions
LogP (octanol/water)	see Section 12

10. STABILITY AND REACTIVITY

Conditions to avoid:	Stable under normal handling and storage conditions
Materials to avoid:	Oxidising agents

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

- **Oral:** Single dose oral toxicity is low. The oral LD₅₀ female rat is between 1260 and 2520mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing large amounts may cause injury.
- **Dermal:** A single prolonged exposure is not likely to result in material being absorbed through the skin in harmful amounts. Prolonged exposure to very large amounts of the component(s) in this mixture may cause drowsiness.
- **Inhalation:** Signs and symptoms of excessive exposure may be anaesthetic or narcotic effects

Irritation

- **Skin:** Prolonged or repeated exposure is not likely to cause significant skin irritation
- **Eyes:** May cause moderate eye irritation. May cause moderate corneal injury
- **Inhalation** Excessive exposure may cause irritation to upper respiratory tract and lungs

Developmental/Reproductive Effects Birth defects are unlikely. Exposures having no effect on the mother should have no effects on the foetus

Other Information Repeated excessive exposure may cause liver and possibly kidney effects

12. ECOLOGICAL INFORMATION

- Mobility and bioaccumulation potential:** Log octanol/water partition coefficient (log Pow) is estimated to be <3. Based on actual testing and data for similar material
- Degradation:** Biodegradation reached in Closed Bottle test after 20 days: 8.5%. Material is not readily biodegradable according to OECD/EU guidelines
- Aquatic toxicity:** Acute LC₅₀ for fathead minnow (*Pimephales promelas*) is > 100mg/l. Material is expected not to be harmful to aquatic organisms (LC₅₀/EC₅₀/IC₅₀ greater than 100mg/l)

13. DISPOSAL CONSIDERATIONS

- Waste from residues/unused products:** Incinerate under controlled conditions according to local and national regulations
- Contaminated packaging:** Remove remaining waste products adhering to the container walls. Remove hazard labelling. Dispose of in accordance with local and national regulations

14. TRANSPORT INFORMATION

- Remarks:** The product is not classified for any mode of transport

15. REGULATORY INFORMATION

Inventory Status:

- EINECS (Europe):** Existing polymer according to the definition in the 7th Amendment to Directive 67/548/EEC and all starting materials and additives are listed in EINECS
- Hazard Symbol:** Xn – Harmful
- Risk Phrases:** R(22) Harmful if swallowed
R(36) Irritating to eyes
- Safety Phrases:** S(24) Avoid contact with skin
S(25) Avoid contact with eyes

Chemical name: Polypropylene glycol methyl ether

16. OTHER INFORMATION

No other information

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.