SOLBERG

**SAFETY DATA SHEET**

**PRODUCT NAME** **REHEALING FOAM RF 6**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** WORMALD NZ LTD

**Address** 8 Henderson Place
Onehunga
Auckland 1061

Private Bag 93011
New Lynn
Auckland 0640

**Telephone Number** +64 9 6350755
**Fax** +64 9 2592485
**Emergency** 0800 243 622 [CHEMCALL]

**Synonym(s)** REHEALING FOAM RF 6

**Use(s)** FIRE EXTINGUISHING AGENT • FIRE FIGHTING

**MSDS Date** 10 October 2010

## 2. HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO HAZARDOUS SUBSTANCES (CLASSIFICATION) REGULATIONS 2001**

**HAZARD CLASSIFICATION**
6.3B .Substances that are mildly irritating to the skin
6.4A. Substances that are irritating to the eye
6.9B. Substances that are harmful to human target organs or systems

**HAZARD STATEMENTS**
H316 Causes mild skin irritation.
H320 Causes eye irritation.
H361 May cause damage to primary organs through prolonged or repeated exposure

**PRECAUTIONARY STATEMENTS**

| | |
|---|---|
| P103 | Read label before use. Read Safety Data Sheet before use. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product |
| P309 + P311 | If exposed or if you feel unwell get medical advice/attention or call a POISON CENTER. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |
| P305 +P351 +P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient | CAS No. | Content |
|---|---|---|
| DIETHYLENE GLYCOL MONOBUTYL ETHER | 112-34-5 | 5-10% |

| | | |
|---|---|---|
| 1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL) -N,N-DIMETHYL-, N-COCO ACYL DERIVS., HYDROXIDES, INNER SALTS | 61789-40-0 | 15-20% |
| D-GLUCOPYRANOSE, OLIGOMERS, DECYL OCTYL GLYCOSIDES | 68515-73-1 | <5% |
| WATER | 7732-18-5 | 60-70% |

## 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes**.**

**Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing**.**

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poisons Information Centre or a doctor (at once). If swallowed, do not induce vomiting.

**Medical Advice** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Flammability** Non flammable. May evolve toxic gases (hydrocarbons, carbon oxides) when heated to decomposition**.**

**Fire and Explosion** Non flammable. Not Explosive**.**

**Extinguishing** Extinguishing agent.

**Hazchem Code** None allocated**.**

## 6. ACCIDENTAL RELEASE MEASURES

**Spillage** If spilt, absorb with sand or similar. Wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Collect and place in sealable containers for disposal. Caution: Spill site may be slippery.

## 7. STORAGE AND HANDLING

**Storage** Store in a cool dry area. Also store removed from reactive metals, electrically energised equipment and any material reactive with water.

**Handling** Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Stds**

| Ingredient | Reference | TWA | | STEL | |
|---|---|---|---|---|---|
| | | ppm | mg/m3 | ppm | mg/m3 |
| Diethylene Glycol Monobutyl Ether | OSH (NZ) | 10.0 | 67.5 | 15.0 | 101.2 |

**Engineering Controls** Do not inhale vapours/fumes. When handling this product, maintain adequate natural ventilation where practicable. Contact emergency personnel.

**PPE**

Wear splash-proof goggles and rubber or PVC gloves. When using large quantities or where heavy contamination is likely, wear coveralls. Where an inhalation risk exists, wear a Type A-Class P1 (Organic gases/vapours and Particulate) Respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** AMBER TO DARK BROWN LIQUID

**Odour** PLEASANT

**pH** 6.0 – 9.0

**Vapour Pressure** 18mmHg @ $20^{O}$c

**Vapour Density** NOT AVAILABLE

**Boiling Point** $100^{O}$C

**Melting Point** NOT AVAILABLE

**Evaporation Rate** NOT AVAILABLE

**Density** NOT AVAILABLE

**Solubility (water)** 100%

**Specific Gravity** 1.09

**Volatiles** 83%

**Flammability** NON FLAMMABLE

**Flash Point** NOT RELEVANT

**Upper Explosion Limit** NOT RELEVANT

**Lower Explosion Limit** NOT RELEVANT

**Autoignition Temperature** NOT DETERMINED

**Viscosity** 1500 - 4,000 centipoise

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended conditions of storage

**Conditions to Avoid** No known conditions to avoid.

**Material to Avoid** Incompatible with oxidising agents (eg. hypochlorites, peroxides) and acids (eg. sulphuric acid). Also incompatible with reactive metals (eg. potassium), electrically energised equipment and any material reactive with water.

**Decomposition** May evolve toxic gases (hydrocarbons, carbon oxides) when heated to decomposition.

**Polymerization** Polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Low toxicity**.** This product has the potential to cause adverse acute and chronic health effects with over exposure, however given product dilution in end use and application over exposure is not anticipated with normal use. Chronic over exposure to some glycols may result in kidney, liver and nerve damage.

**Eye Irritant.** Contact may result in irritation, lacrimation, pain and redness.

**Inhalation** Low**.** Over exposure at high levels may result in mucous membrane irritation of the nose and throat with coughing. Under extreme temperatures in a fire situation toxic by-products associated with this extinguishing agent and surrounding materials may also be generated.

**Skin** Prolonged or repeated contact may result in mild irritation, rash and dermatitis.

**Ingestion** Low toxicity. Ingestion may result in gastrointestinal irritation, nausea, vomiting, headache, abdominal pain and diarrhoea. However, due to product form ingestion is considered unlikely. Maintain good personal hygiene standards.

**Toxicity Data**

DIETHYLENE GLYCOL MONOBUTYL ETHER (112-34-5) LD50 (Ingestion): 2000 mg/kg (guinea pig) LD50 (Skin): 2700 mg/kg (rabbit)

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**

**RE-HEALING FOAM RF6 6%:**

- LC50 (96 h) : 42 mg/l (SALMO GAIRDNERI/ONCORHYNCHUS MYKISS)
- EC50 (48 h) : 644 mg/l (DAPHNIA MAGNA)
- EC50 (96 h) : >6.9 mg/l (SELENASTRUM CAPRICORNUTUM)
- **Effect on waste water purification** : harmless to activated sludge at sufficient dilution

**Mobility:**

- **Volatile organic compounds (VOC):** 0%
- Soluble in water

For other physicochemical properties see heading 9

**Persistence and degradability:**

- **biodegradation BOD5 :** 54 **% COD**
- **water :** - Readily biodegradable in water
- test: BOD 87% COD, 28d, OECD 301D
- **soil : T ½:** N.D. **days**

**Bioaccumulative potential:**

- **log Pow :** <3 (components)
- **BCF :** N.D.
- Slightly or not bioaccumulative (components)

**Results of PBT assessment:**

- Not applicable, based on available data

**Other adverse effects:**

- **WGK** : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- **Effect on the ozone layer** : Not dangerous for the ozone layer (1999/45/EC)
- **Greenhouse effect** : No data available

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** Export the substance from New Zealand as waste ; or Treat the substance so that it is no longer a hazardous substance ; or Discharge the substance into the environment so that, after reasonable mixing, the concentration of the substance in an environmental medium does not exceed any relevant tolerable exposure limit and/or environmental exposure limit set for the substance or any of its components.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

**NOT CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE: DANGEROUS GOODS 2005**

**NZS 5433:2007, UN, IMDG OR IATA**

| | | | | | |
|---|---|---|---|---|---|
| **Shipping Name** | None Allocated | | | | |
| **UN No.** | None Allocated | **DG Class** | None Allocated | **Subsidiary Risk(s)** | None Allocated |
| **Pkg Group** | None Allocated | **Hazchem Code** | None Allocated | **EPG** | None Allocated |

## 15. REGULATORY INFORMATION

**Approval Code** HSR002573

**Group Name** Fire Fighting Chemicals Group Standard 2006

**HSNO** Controls Refer to the ERMA website for more information: www.ermanz.govt.nz

## 16. OTHER INFORMATION

**Additional Information**

**ABBREVIATIONS:**

ADB - Air-Dry Basis. BEI - Biological Exposure Indice(s) CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System. EINECS - European INventory of Existing Commercial chemical Substances. IARC - International Agency for Research on Cancer. M - moles per litre, a unit of concentration. mg/m3 - Milligrams per cubic metre. NOS - Not Otherwise Specified. NTP - National Toxicology Program. OSHA - Occupational Safety and Health Administration. pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). ppm - Parts Per Million. RTECS - Registry of Toxic Effects of Chemical Substances. TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare an SDS which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this SDS is provided as a guide only.
Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status** This document has been compiled by the retailer of the product and serves as the retailers Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to the retailer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the retailer.

While Solberg has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Solberg accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

**Prepared By**
**A J Haggerty,**

**HSNO Adviser to Wormald Tyco NZ**

**SDS Date:**11 October 2010

**Reviewed** by Responsible Care 21 August 2013

## End of Report