

Safety data sheet number MI10842AUZ

Version 4

Revision date 16/Sep/2014

Supercedes date 16/Aug/2010



Safety Data Sheet DRILPLEX⁺ HDD

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

1.1 Product identifier

Product name DRILPLEX⁺ HDD
Product code MI10842AUZ
REACH Registration Name Exempt

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

Recommended use Rheology modifier.
Uses advised against None known.

1.3 Details of the supplier of the safety data sheet

Supplier identification
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

Regulation (EC) No. 1272/2008

Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label Elements



Signal word

WARNING

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs: Get medical advice/ attention

P501 - Dispose of contents/container in accordance with local regulations.

Supplementary precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling

P362 - Take off contaminated clothing and wash before re-use

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

Indication of danger

Xi - Irritant

R-code(s)

R36, R41

Contains

Sodium carbonate

Calcium dihydroxide

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 Hazardous according to the criteria of NOHSC.

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3. Composition/information on ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
Sodium carbonate	207-838-8	497-19-8	30-60	Xi; R36	Eye Irrit. 2 (H319)	No data available
	Not Listed	Proprietary	10-30	-	Not classified	No data available
	Listed	Proprietary	10-30	-	Not classified	No data available
Calcium dihydroxide	215-137-3	1305-62-0	1-5	Xi; R37/38, R41	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335)	No data available

Comments

The product contains other ingredients which do not contribute to the overall classification.

4. First aid measures

4.1 Description of first-aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Seek medical attention if irritation occurs.
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.
Eye contact	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, CO₂, Dry Chemical.

Extinguishing media which shall not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture

Precautions against fire and explosion

None known.

Hazardous combustion products

Fire or high temperatures create: Carbon dioxide (CO₂).

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

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. 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.

Hygiene measures

Use good work and personal hygiene practices to avoid exposure. When using do not smoke, eat or drink. 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.
- Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid contact with:
Acids
- Storage class** Chemical storage.
- Packaging material** Use specially constructed containers only

7.3 Specific end uses

See also Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure limits No biological limit allocated

Component	EU OEL - Third List	Austria	Australia	Denmark
Sodium carbonate	Not determined	Not determined	Not determined	Not determined
	Not determined	Not determined	10 mg/m ³ TWA (fume)	6 mg/m ³ TWA
	Not determined	Not determined	10 mg/m ³ TWA (containing no asbestos and <1% crystalline silica, inspirable dust)	5 mg/m ³ TWA 2 mg/m ³ TWA
Calcium dihydroxide	Not determined	Not determined	5 mg/m ³ TWA	5 mg/m ³ TWA

Component	Finland	France	Germany	Hungary
Sodium carbonate	Not determined	Not determined	Not determined	Not determined
	Not determined	10 mg/m ³	1.5 mg/m ³ MAK 4 mg/m ³ MAK	Not determined
Calcium dihydroxide	Not determined	10 mg/m ³	4 mg/m ³ MAK 1.5 mg/m ³ MAK	Not determined
	Not determined	5 mg/m ³	Not determined	Not determined

Component	New Zealand	Italy	Netherlands	Norway
Sodium carbonate	Not Determined	Not determined	Not determined	Not determined
	10 mg/m ³ TWA	Not determined	Not determined	10 mg/m ³ TWA
Calcium dihydroxide	10 mg/m ³ TWA	Not determined	Not determined	10 mg/m ³ TWA
	5 mg/m ³ TWA	Not determined	Not determined	5 mg/m ³ TWA

Component	Poland	Portugal	Romania	Russia
Sodium carbonate	Not determined	Not determined	Not determined	Not determined
	5 mg/m ³ TWA fume 10 mg/m ³ TWA dust	10 mg/m ³ TWA inhalable fraction	Not determined	4 mg/m ³ MAC
Calcium dihydroxide	2.5 mg/m ³ TWA total inhalable dust and fume 1.2 mg/m ³ TWA respirable dust and fume	10 mg/m ³ TWA particulate matter containing no Asbestos and < 1% Crystalline silica	Not determined	6 mg/m ³ MAC 6 mg/m ³ TWA aerosol Fibrogenic substance
	2 mg/m ³ TWA	5 mg/m ³ TWA	Not determined	2 mg/m ³ MAC Skin

Component	Spain	Switzerland	Turkey	UK
Sodium carbonate	Not determined	Not determined	Not determined	Not determined
	10 mg/m ³ VLA-ED dust and fume	3 mg/m ³ MAK fume, respirable	Not determined	30 mg/m ³ STEL calculated inhalable dust 12 mg/m ³ STEL calculated fume and respirable dust 10 mg/m ³ TWA inhalable dust 4 mg/m ³ TWA fume and respirable dust
Calcium dihydroxide	10 mg/m ³ VLA-ED	24 mg/m ³ STEL respirable, smoke 3 mg/m ³ MAK respirable, smoke	Not determined	Not determined
	5 mg/m ³ VLA-ED	5 mg/m ³ MAK inhalable	5 mg/m ³ TWA	15 mg/m ³ STEL calculated 5 mg/m ³ TWA

Derived No Effect Level (DNEL)

Short term exposure local effects
Sodium carbonate

Inhalation	10 mg/m ³
Long term exposure local effects	
Sodium carbonate	
Inhalation	10 mg/m ³

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.

Personal protective equipment

Eye protection

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

Hand protection

Repeated or prolonged contact:, Use protective gloves made of:, Nitrile, Neoprene.

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 (BS EN 143).

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

Physical state	Solid
Appearance	Powder Dust
Odour	Odourless
Colour	off-white
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No information available	
pH @ dilution	10-11	@ 1%
Melting/freezing point		
Boiling point/range	No information available	
Flash Point	No information available	
Evaporation rate		

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	2.8 - 3.1 sg @ 20 °C
Bulk density	650-800 kg/m ³ / 35-45 lb/cu.ft
Relative density	No information available
Water solubility	Miscible with water.
Solubility in other solvents	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	
Viscosity, dynamic	No information available
Log Pow	Not determined

Explosive properties	Not Applicable
Oxidizing properties	None known.

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	None
Density VALUE	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 polymerisation does not occur.

10.4 Conditions to avoid

Protect from moisture.

10.5 Incompatible materials

Acids.

10.6 Hazardous decomposition products

See also section 5.2.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

Eye contact Causes serious eye irritation.

Skin contact Causes skin irritation.

Ingestion Irritant; may cause pain or discomfort to mouth, throat and stomach.

Acute toxicity .

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	= 4090 mg/kg (Rat)	No data available	No data available
	No data available	No data available	No data available
	> 5000 mg/kg (Rat)	No data available	No data available
Calcium dihydroxide	= 7340 mg/kg (Rat)	No data available	No data available

Sensitisation 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 None known.

Routes of exposure Eye contact. Skin contact.

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.

Toxicity to algae

This product is not considered toxic to algae. See component information below.

Toxicity to fish

This product is not considered toxic to fish. See component information below.

Toxicity to daphnia and other aquatic invertebrates

This product is not considered toxic to invertebrates. See component information below.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Sodium carbonate	300 mg/L LC50 (Lepomis macrochirus) = 96 h 310 - 1220 mg/L LC50 (Pimephales promelas) = 96 h	242 mg/L EC50 (Nitzschia) = 120 h	265 mg/L EC50 (Daphnia magna) = 48 h
	No information available	No information available	No information available
	No information available	No information available	No information available
Calcium dihydroxide	160 mg/L LC50 (Gambusia affinis) = 96 h	No information available	No information available

12.2 Persistence and degradability

Not Applicable - Inorganic chemical.

12.3 Bioaccumulative potential

Not Applicable - Inorganic chemical.

12.4 Mobility in soil

Mobility

The product is miscible with water. May spread in water systems.

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.
Contaminated packaging	Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.
EWC waste disposal No.	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: 06 02 05 Waste Code: 7132 Inorganic bases.

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

14.3. Hazard class(es)

ADR/RID/ADN Hazard class	Not regulated
IMDG Hazard class	Not regulated
ICAO Hazard class/division	Not regulated

14.4 Packing group

ADR/RID/ADN Packing Group	Not regulated
IMDG Packing group	Not regulated
ICAO Packing group	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

Australian Standard for the Uniform Scheduling of Drugs and Poisons

No Poisons Schedule number allocated

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.

International inventories

USA, Toxic Substances Control Act inventory (TSCA)	Complies
European Union - EINECS and ELINCS	Complies
Canada, Domestic Substance List (DSL)	Complies
Philippines (PICCS)	Complies
Inventory - Japan - Existing and New Chemicals list	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korea (KECL)	Complies
Inventory - New Zealand - Inventory of Chemicals (NZIoC)	Complies

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

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by	Global Chemical Regulatory Compliance (GCRC) , Anne Karin (Anka) Fosse
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Text of R phrases mentioned in Section 3

R36 - Irritating to eyes

R41 - Risk of serious damage to eyes

R37/38 - Irritating to respiratory system and skin

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

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

†A mark of M-I L.L.C.

Disclaimer

The information provided in this Material 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 guide 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.