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

1.1 Product identifier

Product name: POTASSIUM CHLORIDE
Product code: MI10857
Synonyms: Potassium Chloride 88-99%
Denmark Pr. no.: 336939

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

Recommended Use: Completion fluid additive. Drilling fluid additive.
Uses advised against: Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I Australia Pty Ltd
ABN: 67 009 214 162
Level 5
256 St. George Tce
Perth
WA 6000
T = +61 08 9440 2900
F = +61 08 9322 3080
+47 51577424
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

Hazard statements
This product is not classified as hazardous therefore no (H) hazard statements assigned.

Precautionary Statements - EU (§28, 1272/2008)
This product is not classified as hazardous therefore has no (P) precautionary statements assigned.

Contains
Potassium chloride

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

<table>
<thead>
<tr>
<th>Component</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Weight % - range</th>
<th>Classification (67/546)</th>
<th>Classification (Reg. 1272/2008)</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>231-211-8</td>
<td>7447-40-7</td>
<td>60-100</td>
<td>-</td>
<td>Not classified</td>
<td>01-2119539416-36-x xxx</td>
</tr>
</tbody>
</table>

3.2 Mixtures
Not Applicable

4. First aid measures

4.1 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. Get medical attention if symptoms occur.

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

Unusual fire and explosion hazards
None known.

Hazardous combustion products
Fire or high temperatures create:, Chlorides.

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. Wash thoroughly after handling.

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. Provide appropriate exhaust ventilation at places where dust is formed. Keep airborne concentrations below exposure limits.

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

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
NUI = Nuisance dust, TWA 4mg/m³ Respirable Dust, 10mg/m³ Total Dust. No biological limit allocated.

<table>
<thead>
<tr>
<th>Component</th>
<th>EU OEL</th>
<th>Austria</th>
<th>Australia</th>
<th>Denmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Malaysia</th>
<th>France</th>
<th>Germany</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
## Derived No Effect Level (DNEL)

### Short term exposure systemic effects

<table>
<thead>
<tr>
<th>Component</th>
<th>New Zealand</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>Not Determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Poland</th>
<th>Portugal</th>
<th>Romania</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>5 mg/m³ MAC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Spain</th>
<th>Switzerland</th>
<th>Turkey</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### Long term exposure systemic effects

| Component          | | |
|--------------------| | |
| Potassium chloride | Dermal | 303 mg/kg |
|                    | Inhalation | 1064 mg/m³ |

### Predicted No Effect Concentration (PNEC)

<table>
<thead>
<tr>
<th>Component</th>
<th>Fresh water</th>
<th>Sea water</th>
<th>Impact on sewage treatment</th>
<th>Intermittent release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>0.1 mg/l</td>
<td>0.1 mg/l</td>
<td>10 mg/L</td>
<td>10 mg/L</td>
</tr>
</tbody>
</table>

### Engineering measures to reduce exposure

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

### Personal protective equipment

<table>
<thead>
<tr>
<th>Protection</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye protection</strong></td>
<td>Safety glasses with side-shields.</td>
</tr>
<tr>
<td><strong>Hand protection</strong></td>
<td>Use protective gloves made of: Rubber gloves. Frequent change is advisable.</td>
</tr>
<tr>
<td><strong>Respiratory</strong></td>
<td>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), At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.</td>
</tr>
<tr>
<td><strong>Skin and body</strong></td>
<td>Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid powder</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Dust</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>White - Light pink</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>pH @ dilution</td>
<td>~7</td>
<td>@ 1%</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>768-773 °C / 1414-1423 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>1406-1413 °C / 2562-2575 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (BuAc =1)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.98</td>
<td>@ 20°C.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Log Pow</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

Explosive properties: Not Applicable
Oxidizing properties: None known.

9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pour point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC content(%)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

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
Avoid dust formation. Protect from moisture.

10.5 Incompatible materials

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 in high concentration may cause irritation of respiratory system.

Eye contact
May cause slight irritation.

Skin contact
Prolonged contact may cause redness and irritation.

Ingestion
Ingestion may cause stomach discomfort.

Unknown acute toxicity
Not Applicable.

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>= 2600 mg/kg (Rat)</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to fish</th>
<th>Toxicity to algae</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>750 - 1020 mg/L LC50 (Pimephales promelas) = 96 h 1060 mg/L LC50 (Lepomis macrochirus) = 96 h</td>
<td>2500 mg/L EC50 (Desmodesmus subspicatus) = 72 h</td>
<td>83 mg/L EC50 (Daphnia magna) = 48 h 825 mg/L EC50 (Daphnia magna) = 48 h</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

Not Applicable - Inorganic chemical.

12.3 Bioaccumulative potential

Not Applicable - Inorganic chemical.

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.

Contaminated packaging
Empty containers should be taken for local recycling, recovery 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 03 99

14. Transport information

14.1 UN Number
Not regulated

14.2 Proper shipping name
The product is not covered by international regulation on the transport of dangerous goods

14.3 Hazard class(es)
ADR/RID/ADN/ADG Hazard class  Not regulated
IMDG Hazard class  Not regulated
ICAO Hazard class/division  Not regulated

14.4 Packing group
ADR/RID/ADN/ADG 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

Germany, Water Endangering Classes (VwVwS)

Hazardous to water/Class 1

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Potassium chloride

Schedule 4

New Zealand hazard classification
Not classified.

HSNO approval no.
Not required.

Group number
Not required.


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


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.

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/2013] (CLASS Regulations)

The Industry Code of Practice on Chemical Classification and Hazard Communication 2014 [P.U. (B) 128/2014] (ICOP)

International inventories

USA (TSCA)
Complies

European Union (EINECS and ELINCS)
Complies

Canada (DSL)
Complies

Philippines (PICCS)
Complies

Japan (ENCs)
Complies

China (IECS)
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

Prepared by Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Anne Karin (Anka) Fosse
Supersedes date 26/Feb/2013
Revision date 20/Jun/2015
Version 5

The following sections have been revised: 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.

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

This product is not classified as hazardous therefore no (H) hazard statements assigned.

Disclaimer
The information contained herein is considered in good faith as reliable of the date issued and is based upon on measurements, tests or data derived from supplier’s own study or furnished by others. In providing this SDS information, Supplier makes no express or implied warranties as to the information or product; merchantability or fitness of purpose; any express or implied warranty; or non-infringement of intellectual property rights; and supplier assumes no responsibility for any direct, special or consequential damages, results obtained, or the activities of others. To the maximum extent permitted by law, supplier’s warranty obligations and buyer’s sole remedies are as stated in separate agreement between the parties.