SAFETY DATA SHEET

1. Identification

Product identifier

HOLEMAKER METAL WORKING FLUID, SPFLUID, SPFLUID1, SPFLUID5, SPFLUID20

Other means of identification

SDS No. Not applicable

Recommended use of the chemical and restrictions on use

Recommended use METALWORKING FLUID
Restrictions on use Not available.

Details of manufacturer or importer

Manufacturer

Company name CIMCOOL® Korea Inc
Address 255,Gongdan-ro,Onsan-eup,Ulju-gun,Ulsan,Korea

Telephone +82-52-239-2333
Emergency telephone number (Korea) +1-703-527-3887 (CHEMTREC)

Importer / Supplier

INDUSTRIAL TOOL & MACHINERY SALES
Company name Yatala
Address 18 Business Street
QLD 4207
07 3287 1114

Telephone (General Information) 61-438-600-915
Emergency telephone number (24 hour access) 131 126 (Poison Information Centre)
Emergency telephone number (CHEMTREC) 1-703-527-3887

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.
Health hazards
Skin irritation Category 2
Serious eye irritation Category 2
Sensitization, skin Category 1

Environmental hazards Not classified.

Label elements, including precautionary statements

Hazard symbol(s)

Exclamation mark

Signal word Warning

Hazard statement(s) Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
Precautionary statement(s)

Prevention
Avoid breathing mist or vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves.

Response
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage
Store away from incompatible materials.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification
None known.

Supplemental information
None.

3. Composition/information on ingredients

Mixture

<table>
<thead>
<tr>
<th>Identity of chemical ingredients</th>
<th>CAS number and other unique identifiers</th>
<th>Concentration of ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE</td>
<td>141-43-5</td>
<td>5 - &lt; 10</td>
</tr>
<tr>
<td>TRIETHANOLAMINE</td>
<td>102-71-6</td>
<td>5 - &lt; 10</td>
</tr>
<tr>
<td>OCTANOIC ACID</td>
<td>124-07-2</td>
<td>1 - &lt; 5</td>
</tr>
<tr>
<td>TRIAZINETRIETHANOL</td>
<td>4719-04-4</td>
<td>1 - &lt; 3</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>80 - &lt; 90</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of necessary first aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

Personal protection for first-aid responders
If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

Symptoms caused by exposure
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Severe eye irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Medical attention and special treatment
Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
Not applicable, non-combustible.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire fighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Hazchem code
2 X

General fire hazards
No unusual fire or explosion hazards noted.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**For emergency responders**

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

This product is miscible in water. Local authorities should be advised if significant spillages cannot be contained.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. Clean up in accordance with all applicable regulations. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use.

8. Exposure controls and personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

**Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE (CAS 141-43-5) STEL</td>
<td>15 mg/m3</td>
</tr>
<tr>
<td></td>
<td>6 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>3 ppm</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6) TWA</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

**Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE (CAS 141-43-5) STEL</td>
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</tr>
<tr>
<td></td>
<td>6 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>3 ppm</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6) TWA</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE (CAS 141-43-5) STEL</td>
<td>6 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6) TWA</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>
UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEL</td>
<td>7.6 mg/m³</td>
</tr>
<tr>
<td>TWA</td>
<td>3 ppm</td>
</tr>
<tr>
<td></td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>1 ppm</td>
</tr>
</tbody>
</table>

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>0.51 mg/m³</td>
<td>Vapor and aerosol.</td>
</tr>
<tr>
<td></td>
<td>0.2 ppm</td>
<td>Vapor and aerosol.</td>
</tr>
<tr>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash fountain and emergency showers are recommended.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection: Wear safety glasses with side shields (or goggles). Do not get in eyes. Eye wash fountain is recommended.

Skin protection: Use protective gloves made of: Nitrile.

Hand protection: Wear suitable protective clothing and gloves.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance: CLEAR

Physical state: Liquid.

Form: Liquid.

Color: Not available.

Odor: Chemical

Odor threshold: Not available.

pH: 9.6

Melting point/freezing point: 23 °F (-5 °C)

Initial boiling point and boiling range: > 212 °F (> 100 °C)

Flash point: Not Applicable

Evaporation rate: Like water when diluted

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%): Not available.

Flammability limit - upper (%): Not available.

Explosive limit - lower (%): Not available.

Explosive limit - upper (%): Not available.

Material name: HOLEMAKER METAL WORKING FLUID
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility(ies):
- Solubility (water): 100 % Water Miscible
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Other physical and chemical parameters:
- Explosive properties: Not explosive.
- Oxidizing properties: Not oxidizing.
- pH in aqueous solution: 9.2 @ 5%
- Specific gravity: 1.068

10. Stability and reactivity
Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid: Contact with incompatible materials.
Incompatible materials: Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Acids. Avoid contact with oxidizers or reducing agents.
Hazardous decomposition products: Smoke, fumes, oxides of nitrogen, and oxides of carbon.

11. Toxicological information
Information on possible routes of exposure:
- Ingestion: Expected to be a low ingestion hazard.
- Inhalation: Prolonged inhalation may be harmful.
- Skin contact: Causes skin irritation. May cause an allergic skin reaction.
- Eye contact: Causes serious eye irritation.
Symptoms related to exposure: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Acute toxicity: Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIAZINETRIETHANOL (CAS 4719-04-4)</td>
<td>Acute</td>
<td>Oral</td>
</tr>
<tr>
<td>Liquid</td>
<td>Rat</td>
<td>1000 mg/kg</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>Acute</td>
<td>Oral</td>
</tr>
<tr>
<td>Liquid</td>
<td>Rat</td>
<td>4190 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitization

**Respiratory sensitization**
Not a respiratory sensitizer.

**Skin sensitization**
May cause an allergic skin reaction.

**Germ cell mutagenicity**
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

**IARC Monographs. Overall Evaluation of Carcinogenicity**

**TRIETHANOLAMINE (CAS 102-71-6)**
3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity**
This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**
Not classified.

**Specific target organ toxicity - repeated exposure**
Not classified.

**Aspiration hazard**
Not an aspiration hazard.

12. Ecological information

**Ecotoxicity**
The product is 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.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE (CAS 141-43-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>OCTANOIC ACID (CAS 124-07-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td>TRIAZINETRIETHANOL (CAS 4719-04-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Ceriodaphnia dubia)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**

**Bioaccumulative potential**

**Partition coefficient**

<table>
<thead>
<tr>
<th>n-octanol / water (log Kow)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOETHANOLAMINE</td>
<td>-1.31</td>
</tr>
<tr>
<td>OCTANOIC ACID</td>
<td>3.05</td>
</tr>
<tr>
<td>TRIAZINETRIETHANOL</td>
<td>-2</td>
</tr>
<tr>
<td>TRIETHANOLAMINE</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

**Mobility in soil**
This product is miscible in water.

**Other adverse effects**
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

**Disposal methods**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Residual waste
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADG
Not regulated as dangerous goods.

RID
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

Safety, health and environmental regulations
This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

Australia Medicines & Poisons Appendix A
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E
MONOETHANOLAMINE (CAS 141-43-5)
TRIETHANOLAMINE (CAS 102-71-6)

Australia Medicines & Poisons Appendix F
MONOETHANOLAMINE (CAS 141-43-5)
TRIETHANOLAMINE (CAS 102-71-6)

Australia Medicines & Poisons Appendix G
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 2
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4
MONOETHANOLAMINE (CAS 141-43-5)
TRIETHANOLAMINE (CAS 102-71-6)

Australia Medicines & Poisons Schedule 5
MONOETHANOLAMINE (CAS 141-43-5)
TRIETHANOLAMINE (CAS 102-71-6)
Australia Medicines & Poisons Schedule 6
  MONOETHANOLAMINE (CAS 141-43-5)

Australia Medicines & Poisons Schedule 7
  Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8
  Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9
  Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)
  MONOETHANOLAMINE (CAS 141-43-5) 1000 - 9999 TONNES See the regulation for additional information.
  TRIETHANOLAMINE (CAS 102-71-6) 1000 - 9999 TONNES See the regulation for additional information.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)
  Not listed.

National Pollutant Inventory (NPI) substance reporting list
  Not listed.

Prohibited Carcinogenic Substances
  Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)
  Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)
  Not listed.

Restricted Carcinogenic Substances
  Not regulated.

International regulations
  Stockholm Convention
    Not applicable.
  Rotterdam Convention
    Not applicable.
  Kyoto protocol
    Not applicable.
  Montreal Protocol
    Not applicable.
  Basel Convention
    Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory or exempt (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

Issue date

03-07-2018
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.

Revision information
This document has undergone significant changes and should be reviewed in its entirety.