

# SAFETY DATA SHEET

## 1. Identification

**Product identifier**                      MACC SEMI - SYNTHETIC METAL WORKING FLUID,  
MF-5LITRE, MF-20LITRE

**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**                      18 Business Street  
**Address**                                      Yatala  
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**

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin irritation	Category 2
	Serious eye irritation	Category 2
	Sensitization, skin	Category 1
<b>Environmental hazards</b>	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.

<b>Precautionary statement(s)</b>	
<b>Prevention</b>	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.
<b>Response</b>	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.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
MONOETHANOLAMINE	141-43-5	5 - < 10
TRIETHANOLAMINE	102-71-6	5 - < 10
OCTANOIC ACID	124-07-2	1 - < 5
TRIAZINETRIETHANOL	4719-04-4	1 - < 3
Other components below reportable levels		80 - < 90

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.
<b>Personal protection for first-aid responders</b>	If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
<b>Symptoms caused by exposure</b>	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.
<b>Medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	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** 2X

**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	<p>This product is miscible in water. Local authorities should be advised if significant spillages cannot be contained.</p> <p>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.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>

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.
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Occupational exposure limits

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

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	7.5 mg/m3
TRIETHANOLAMINE (CAS 102-71-6)		3 ppm
	TWA	5 mg/m3

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

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	7.5 mg/m3
TRIETHANOLAMINE (CAS 102-71-6)		3 ppm
	TWA	5 mg/m3

US. ACGIH Threshold Limit Values

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

**UK. EH40 Workplace Exposure Limits (WELs)**

	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	7.6 mg/m3
	TWA	3 ppm
		2.5 mg/m3 1 ppm

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

	Type	Value	Form
MONOETHANOLAMINE (CAS 141-43-5)	TWA	0.51 mg/m3	Vapor and aerosol.
TRIETHANOLAMINE (CAS 102-71-6)	TWA	0.2 ppm 5 mg/m3	Vapor and aerosol. Inhalable fraction.

**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****Hand protection**

Use protective gloves made of: Nitrile.

**Other**

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.

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.
<b>Other physical and chemical parameters</b>	
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.
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Components	Species	Test Results
TRIAZINETRIETHANOL (CAS 4719-04-4)		
<b><u>Acute</u></b>		
<b>Oral</b>		
<i>Liquid</i>		
LD50	Rat	1000 mg/kg
TRIETHANOLAMINE (CAS 102-71-6)		
<b><u>Acute</u></b>		
<b>Oral</b>		
<i>Liquid</i>		
LD50	Rat	4190 mg/kg

\* 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.

Components		Species	Test Results
MONOETHANOLAMINE (CAS 141-43-5)			
<b>Aquatic</b>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/l, 96 hours
OCTANOIC ACID (CAS 124-07-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Fish	310 mg/l, 96 hours
TRIAZINETRIETHANOL (CAS 4719-04-4)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	11.9 mg/l, 48 hours ECHA
Fish	LC50	Fish	16 - 240 mg/l, 96 hours ECHA
TRIETHANOLAMINE (CAS 102-71-6)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	565.2 - 658.3 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Bluegill (Lepomis macrochirus)	450 - 1000 mg/l, 96 hours

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

**Persistence and degradability****Bioaccumulative potential****Partition coefficient n-octanol / water (log Kow)**

MONOETHANOLAMINE	-1.31
OCTANOIC ACID	3.05
TRIAZINETRIETHANOL	-2
TRIETHANOLAMINE	-2.3

**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.

<b>Residual waste</b>	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).
<b>Contaminated packaging</b>	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

**National 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 Depleting 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**

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

\*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.