

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 CHEMTREC) 003-0813-2549

Importer / Supplier

Company name INDUSTRIAL TOOL & MACHINERY SALES
Address 11 Eastern Service Road
Stapylton
QLD 4207
07 3287 1114

Telephone (General Information) + 61 3 9768 3860

Emergency Telephone Number (Australia) 131 126 (Poison Information Centre)

Emergency Telephone Number (Australia CHEMTREC) + 61 2 9037 2994

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.

Health hazards Acute toxicity, inhalation Category 4
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. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled.
Precautionary statement(s)	
Prevention	Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. 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	5.5% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

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
CAPRYLIC ACID	124-07-2	1 - < 5
TRIAZINETRIETHANOL	4719-04-4	1 - < 3
Other components below reportable levels		80 - < 90

The exact percentages of hazardous ingredients have been withheld as a trade secret.

4. First-aid measures

Description of necessary first aid measures

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. 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 with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not give liquids. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
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 Direct contact with eyes may cause temporary 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.

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	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/vapors. 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 release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. 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. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in tightly closed container. Store in a well-ventilated place. 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)

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

US. ACGIH Threshold Limit Values

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m ³

UK. EH40 Workplace Exposure Limits (WELs)

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

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

Components	Type	Value	Form
MONOETHANOLAMINE (CAS 141-43-5)	TWA	0.51 mg/m ³	Vapor and aerosol.
		0.2 ppm	Vapor and aerosol.
TRIETHANOLAMINE (CAS 102-71-6)	TWA	1 mg/m ³	Inhalable fraction.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation 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. Contaminated work clothing should not be allowed out of the workplace.

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.

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.

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

Inhalation Harmful if inhaled.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to exposure Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause an allergic skin reaction.

Acute toxicity

Components	Species	Test Results
CAPRYLIC ACID (CAS 124-07-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg

Components	Species	Test Results
MONOETHANOLAMINE (CAS 141-43-5)		
Acute		
Dermal		
LD50	Rabbit	1025 mg/kg
TRIAZINETRIETHANOL (CAS 4719-04-4)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rat	4000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	1000 mg/kg
TRIETHANOLAMINE (CAS 102-71-6)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	4190 mg/kg
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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
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.	
Chronic effects	Not available.	
Other information	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.	

12. Ecological information

Ecotoxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components	Species	Test Results
CAPRYLIC ACID (CAS 124-07-2)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fish
		310 mg/l, 96 hours

Components	Species		Test Results
MONOETHANOLAMINE (CAS 141-43-5)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	65 mg/l, 48 hours ECHA
TRIAZINETRIETHANOL (CAS 4719-04-4)			
Aquatic			
<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)			
Aquatic			
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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

**Partition coefficient
n-octanol / water (log Kow)**

CAPRYLIC ACID	3.05
MONOETHANOLAMINE	-1.31
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. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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

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.

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)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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	06-05-2015
Revision date	02-20-2026
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.