

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** CIMTECH® 46C  
METALWORKING FLUID

### 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, Ulsan, Korea

**Telephone** +82-52-239-2333  
**Emergency telephone number (Korea CHEMTREC)** 003-0813-2549

#### Importer / Supplier

**Company name** CIMCOOL® Korea Inc  
**Address** C/- DuBois Chemicals Australia Pty Ltd  
305 Frankston Dandenong Road  
Dandenong South VIC 3175  
Australia

**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

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin irritation	Category 2
	Serious eye irritation	Category 2
<b>Environmental hazards</b>	Not classified.	

### Label elements, including precautionary statements

#### Hazard symbol(s)



Corrosion Exclamation mark

**Signal word** Warning

**Hazard statement(s)** May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.

## Precautionary statement(s)

<b>Prevention</b>	Keep only in original container. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection. Wear protective gloves.
<b>Response</b>	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Absorb spillage to prevent material damage.
<b>Storage</b>	Store in corrosive resistant container with a resistant inner liner.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards which do not result in classification** None known.

**Supplemental information** 4% of the mixture consists of component(s) of unknown acute dermal toxicity. 10% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

The classified hazards shown on this SDS are associated with the product concentrate. These hazards are not expected under recommended use conditions and dilution.

## 3. Composition/information on ingredients

### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
TRIETHANOLAMINE	102-71-6	10 - < 20
2-(2-AMINOETHOXY)ETHANOL	929-06-6	5 - < 10
BENZOTRIAZOLE	95-14-7	5 - < 10
Other components below reportable levels		70 - < 80

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

## 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. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth thoroughly. Drink 1 or 2 glasses of water. 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** Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation.

**Medical attention and special treatment** 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 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** Wear suitable protective equipment.

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

<b>Hazchem code</b>	2X
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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.
<b>For emergency responders</b>	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

**Methods and materials for containment and cleaning up** Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. 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 cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use. Store away from incompatible materials (see Section 10 of the SDS).

## 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
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

#### US. ACGIH Threshold Limit Values

Components	Type	Value
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

#### 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
2-(2-AMINOETHOXY)ETHANOL (CAS 929-06-6)	TWA	0.87 mg/m3	Vapor and aerosol.
		0.2 ppm	Vapor and aerosol.
TRIETHANOLAMINE (CAS 102-71-6)	TWA	1 mg/m3	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. Provide eyewash station and safety shower.

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

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

**Skin protection**

**Hand protection** Nitrile gloves are recommended.

**Other** Wear appropriate chemical resistant clothing.

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

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

**Hygiene measures** When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. 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** 10.4

**Melting point/freezing point** < 32 °F (< 0 °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** 1.08

**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** 9.8 @ 5%

Specific gravity 1.082

## 10. Stability and reactivity

<b>Reactivity</b>	May be corrosive to metals.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Aluminum. Oxidizing agents. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.
<b>Hazardous decomposition products</b>	Smoke, fumes, oxides of nitrogen, and oxides of carbon

## 11. Toxicological information

### Information on possible routes of exposure

<b>Inhalation</b>	Health injuries are not known or expected under normal use.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Harmful if swallowed. Health injuries are not known or expected under normal use.

**Symptoms related to exposure** Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation.

### Acute toxicity

Components	Species	Test Results
2-(2-AMINOETHOXY)ETHANOL (CAS 929-06-6)		
<b>Acute</b>		
<b>Dermal</b>		
<i>Liquid</i>		
LD50	Rabbit	> 3000 mg/kg
<b>Oral</b>		
<i>Liquid</i>		
LD50	Rat	3000 - 3700 mg/kg
BENZOTRIAZOLE (CAS 95-14-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 1000 mg/kg
<b>Inhalation</b>		
LC50	Rat	1.4 mg/l, 4 hours
<b>Oral</b>		
LD50	Rat	560 mg/kg
TRIETHANOLAMINE (CAS 102-71-6)		
<b>Acute</b>		
<b>Dermal</b>		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg
<b>Oral</b>		
<i>Liquid</i>		
LD50	Rat	4190 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	

<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
<b>TRIETHANOLAMINE (CAS 102-71-6)</b>	3 Not classifiable as to carcinogenicity to humans.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May be harmful if absorbed through skin.
<b>Other information</b>	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Components	Species	Test Results
<b>2-(2-AMINOETHOXY)ETHANOL (CAS 929-06-6)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Daphnia 189 mg/l, 48 hours
Fish	LC50	Fish 460 - 681 mg/l, 96 hours ECHA
<b>BENZOTRIAZOLE (CAS 95-14-7)</b>		
<b>Aquatic</b>		
Algae	IC50	Algae 231 mg/l, 72 hours
Crustacea	EC50	Daphnia magna 91 mg/l, 48 hours
Fish	LC50	Fish 25 mg/l, 96 hours
<b>TRIETHANOLAMINE (CAS 102-71-6)</b>		
<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

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

### Bioaccumulative potential

#### Partition coefficient

#### n-octanol / water (log Kow)

2-(2-AMINOETHOXY)ETHANOL	-1.89
BENZOTRIAZOLE	1.44
TRIETHANOLAMINE	1.45 Estimated
	-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.

**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

**UN number** 3267  
**UN proper shipping name** CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (TRIETHANOLAMINE)  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Not available.  
**Hazchem code** None.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### RID

**UN number** 3267  
**UN proper shipping name** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIETHANOLAMINE)  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### IATA

**UN number** 3267  
**UN proper shipping name** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIETHANOLAMINE)  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### IMDG

**UN number** 3267  
**UN proper shipping name** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIETHANOLAMINE)  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** Not available.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

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

### ADG



IATA; IMDG; RID



## 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**

TRIETHANOLAMINE (CAS 102-71-6)

#### **Australia Medicines & Poisons Appendix F**

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**

TRIETHANOLAMINE (CAS 102-71-6)

#### **Australia Medicines & Poisons Schedule 5**

TRIETHANOLAMINE (CAS 102-71-6)

#### **Australia Medicines & Poisons Schedule 6**

Poisons schedule number not allocated.

#### **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)**

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)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
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)	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** 03-20-2017

**Revision date** 02-08-2023

**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.