



SAFETY DATA SHEET

1. Identification

Product identifier **MILFORM® 65A**
STAMPING AND DRAWING FLUID

Other means of identification

SDS No. Not applicable

Recommended use of the chemical and restrictions on use

Recommended use STAMPING AND DRAWING FLUID

Restrictions on use Not available.

Details of manufacturer or importer

Manufacturer

Company name CIMCOOL® Industrial Products LLC
Address 3000 Disney Street
Cincinnati, Ohio 45209
Telephone number 513-458-8100
Emergency telephone number 1-800-424-9300 (CHEMTREC)
Emergency telephone number (Outside United States) 1-703-527-3887 (CHEMTREC)

Importer

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 (24 hour access) 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	Serious eye irritation	Category 2
	Sensitization, skin	Category 1B
Environmental hazards	Not classified.	

Label elements, including precautionary statements

Hazard symbol(s)



Exclamation mark

Signal word	Warning
Hazard statement(s)	May cause an allergic skin reaction. Causes serious eye irritation.
Precautionary statement(s)	
Prevention	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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing 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	1.5% of the mixture consists of component(s) of unknown acute dermal toxicity. 3% of the mixture consists of component(s) of unknown acute inhalation toxicity.
	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
ALKANES C14-16, CHLORO	63449-39-8	40 - < 50
SEVERELY-HYDROTREATED NAPHTHENIC DISTILLATES	64742-52-5	20 - < 30
ALCOHOLS, C6-10, ETHOXYLATED PROPOXYLATED	68987-81-5	1 - < 3
ALKYLARYL SODIUM SULFONATES	68411-30-3	1 - < 3
TRIETHANOLAMINE	102-71-6	1 - < 3
4-(2-NITROBUTYL)MORPHOLINE	2224-44-4	< 1
Other components below reportable levels		20 - < 30

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

4. First-aid measures

Description of necessary first aid measures

Inhalation	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.
Skin contact	Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. Do not give liquids. 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. May cause an allergic skin reaction.
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	Foam. Dry chemical powder. Carbon dioxide (CO ₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

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.
Hazchem code	3Z
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	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

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 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 in vermiculite, dry sand or earth and place into containers. 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. Avoid breathing mist/vapors. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in tightly closed 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
ACGIH Components	Type	Value
SEVERELY-HYDROTREATED NAPHTHENIC DISTILLATES (CAS 64742-52-5)	TWA	5 mg/m3

US. ACGIH Threshold Limit Values

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

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
4-(2-NITROBUTYL)MORPHOLINE (CAS 2224-44-4)	TWA	4.2 mg/m ³	
TRIETHANOLAMINE (CAS 102-71-6)	TWA	0.5 ppm 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**

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	Not Applicable
Melting point/freezing point	< 6 °F (< -14.4 °C)
Initial boiling point and boiling range	Not Applicable
Flash point	385 °F (196.1 °C) Cleveland Open Cup
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	1.07
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.
Fire point	395 °F (201.7 °C)
Oxidizing properties	Not oxidizing.
pH in aqueous solution	9.0 @ 10%
Specific gravity	1.071

Other data

VOC ASTM D2369	3 %
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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	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.
Hazardous decomposition products	Smoke, fumes, oxides of nitrogen, hydrogen chloride, and oxides of carbon

11. Toxicological information

Information on possible routes of exposure

Inhalation	Health injuries are not known or expected under normal use.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Expected to be a low ingestion hazard. 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. May cause an allergic skin reaction.

Acute toxicity

Components	Species	Test Results
ALCOHOLS, C6-10, ETHOXYLATED PROPOXYLATED (CAS 68987-81-5)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg ATE
Oral		
<i>Liquid</i>		
LD50	Rat	2380 - 2745 mg/kg ATE
ALKANES C14-16, CHLORO (CAS 63449-39-8)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg

Components	Species	Test Results
Oral <i>Liquid</i> LD50	Rat	> 5000 mg/kg
ALKYLARYL SODIUM SULFONATES (CAS 68411-30-3)		
Acute Oral <i>Solid</i> LD50	Rat	404 mg/kg
SEVERELY-HYDROTREATED NAPHTHENIC DISTILLATES (CAS 64742-52-5)		
Acute Dermal <i>Liquid</i> LD50	Rabbit	> 5000 mg/kg
Inhalation <i>Mist</i> LC50	Rat	> 5.1 mg/l, 4 hours ATE
Oral <i>Liquid</i> LD50	Rat	> 5000 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	Health injuries are not known or expected under normal use.	
Serious eye damage/irritation	Causes 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.	
	Oil /Distillate meets the EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.	
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	May be harmful if absorbed through skin.	
	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.	

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 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
ALCOHOLS, C6-10, ETHOXYLATED PROPOXYLATED (CAS 68987-81-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Pimephales promelas	1 - 10 mg/l, 96 hours
ALKANES C14-16, CHLORO (CAS 63449-39-8)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	> 0.1 mg/l, 96 hours
ALKYLARYL SODIUM SULFONATES (CAS 68411-30-3)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1.62 mg/l, 48 hours OECD
Fish	LC50	Fish	1.67 mg/l, 96 hours OECD
TRIETHANOLAMINE (CAS 102-71-6)			
Aquatic			
Crustacea	EC50	Water flea (<i>Ceriodaphnia dubia</i>)	565.2 - 658.3 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	450 - 1000 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ALCOHOLS, C6-10, ETHOXYLATED PROPOXYLATED	3.01
ALKANES C14-16, CHLORO	> 5, ECHA Estimated
ALKYLARYL SODIUM SULFONATES	3.32, OECD SIDS - CALC'D
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.

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	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES C14-16, CHLORO)
Transport hazard class(es)	
Class	9
Subsidiary risk	-

Packing group III
Environmental hazards Yes
Hazchem code •3Z
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

UN number 3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES C14-16, CHLORO)
Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
Packing group III
Environmental hazards Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number 3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (ALKANES C14-16, CHLORO)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
ERG Code 9L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

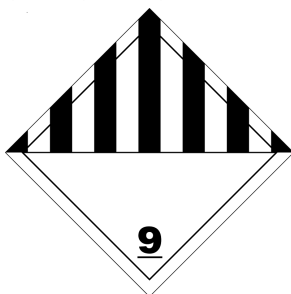
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

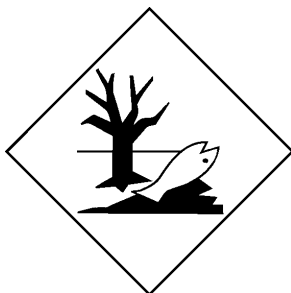
UN number 3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES C14-16, CHLORO), MARINE POLLUTANT
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Read safety 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



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

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 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

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)	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 01-17-2018

Revision date 06-24-2022

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.