

SAFETY DATA SHEET

1. Identification

Product identifier **MILFORM® 635**
STAMPING AND DRAWING FLUID

Other means of identification

SDS number Not applicable

Product code B00457

Recommended use STAMPING AND DRAWING FLUID

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name CIMCOOL® Industrial Products LLC
3000 Disney Street
Cincinnati, Ohio 45209

Telephone (General Information) 513-458-8100

Emergency telephone number 1-800-424-9300 (CHEMTREC)

Emergency telephone number (outside USA) 1-703-527-3887 (CHEMTREC)

Supplier

Company name DUBOIS CHEMICAL CANADA INC dba CIMCOOL® Canada

Address B1 – 1175 Appleby Line
Burlington, ON L7L 5H9 Canada

Telephone (General Information) 905-319-1919

Emergency telephone number (outside USA) 1-703-527-3887 (CHEMTREC)

Supplier Not available.

2. Hazard identification

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



Signal word Warning

Hazard statement Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statement

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 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. Take off contaminated clothing and wash it before reuse.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental information	6.48% of the mixture consists of component(s) of unknown acute oral toxicity. 6.48% of the mixture consists of component(s) of unknown acute dermal toxicity. 5.48% 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. Use in manufacturing processes only.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
PETROLEUM DISTILLATES		64742-52-5	30 - 60
ALKANES, C14, CHLORO		63449-39-8	10 - 30
ALKYLARYL SODIUM SULFONATES		68411-30-3	5 - 10
DIETHYLENE GLYCOL MONOBUTYL ETHER		112-34-5	5 - 10
NONYLPHENOL, ETHOXYLATED		127087-87-0	5 - 10
4-(2-NITROBUTYL)MORPHOLINE		2224-44-4	0.1 - 1
Other components below reportable levels			10 - 30

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. 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.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

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

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.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures 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.

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.

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.

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. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. 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 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/personal protection

Occupational exposure limits

ACGIH

Components	Type	Value
PETROLEUM DISTILLATES (CAS 64742-52-5)	TWA	5 mg/m ³

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
DIETHYLENE GLYCOL MONOBUTYL ETHER (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
DIETHYLENE GLYCOL MONOBUTYL ETHER (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
DIETHYLENE GLYCOL MONOBUTYL ETHER (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.

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, such as personal protective equipment	
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.
General hygiene considerations	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	< 8 °F (< -13.3 °C)
Initial boiling point and boiling range	Not available.
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	1.03
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 information	
Bulk density	8.6 lb/gal @ 60°F
Explosive properties	Not explosive.
Flash point class	Combustible IIIB
Oxidizing properties	Not oxidizing.

pH in aqueous solution	7.2 @ 10%
Specific gravity	1.0301
VOC ASTM D2369	8.2 %

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	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	Smoke, fumes, hydrogen chloride, and oxides of carbon

11. Toxicological information

Information on likely routes of exposure

Inhalation	Health injuries are not known or expected under normal use.
Skin contact	Causes skin irritation. 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 the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
ALKANES, C14, CHLORO (CAS 63449-39-8)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg ATE
Inhalation		
<i>Mist</i>		
LC50	Rat	> 5 mg/l, 4 hours ATE
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg ATE
ALKYLARYL SODIUM SULFONATES (CAS 68411-30-3)		
Acute		
Oral		
<i>Solid</i>		
LD50	Rat	404 mg/kg
DIETHYLENE GLYCOL MONOBUTYL ETHER (CAS 112-34-5)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	2764 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	3305 mg/kg

Components	Species	Test Results
NONYLPHENOL, ETHOXYLATED (CAS 127087-87-0)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	1883 - 4164 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	21.3 mg/l, 8 hours
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
PETROLEUM DISTILLATES (CAS 64742-52-5)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
<i>Mist</i>		
LD50	Rat	> 5.1 mg/l, 4 hours ATE
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye 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.	
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	Prolonged inhalation may be harmful.	
Further 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
ALKANES, C14, CHLORO (CAS 63449-39-8)		
Aquatic		
<i>Acute</i>		
Fish	LC50 Bluegill (<i>Lepomis macrochirus</i>)	> 0.1 mg/l, 96 hours

Components	Species	Test Results	
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
DIETHYLENE GLYCOL MONOBUTYL ETHER (CAS 112-34-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	> 100 mg/l, 48 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	1300 mg/l, 96 hours
NONYLPHENOL, ETHOXYLATED (CAS 127087-87-0)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1.6 - 10 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	1.2 - 9.3 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)

ALKYLARYL SODIUM SULFONATES	3.32, OECD SIDS - CALC'D
DIETHYLENE GLYCOL MONOBUTYL ETHER	1
NONYLPHENOL, ETHOXYLATED	3.7 - 4.5

Mobility in soil This product is miscible with 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 instructions 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.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products 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

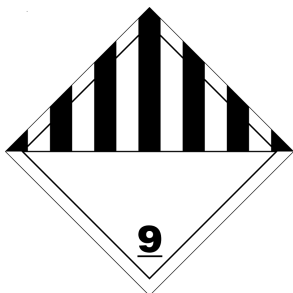
TDG	
UN number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES, C14, CHLORO), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA	
UN number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (ALKANES, C14, CHLORO)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III

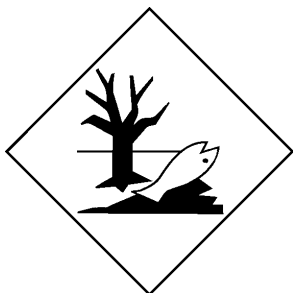
Environmental hazards Yes
ERG Code 9L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG
UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES, C14, 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.

IATA; IMDG; TDG



Marine pollutant



General information IMDG Regulated Marine Pollutant.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

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)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
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** 06-28-2016**Revision date** 04-20-2022**Version #** 08**NFPA ratings**
Health: 1
Flammability: 1
Instability: 0**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**
Hazard identification: Hazard statement
Hazard identification: GHS Signal Words
Hazard identification: Supplemental information
Composition / Information on Ingredients: Ingredients
Accidental release measures: Methods and materials for containment and cleaning up
Physical & Chemical Properties: Multiple Properties
Physical and chemical properties: Odor
Toxicological information: Carcinogenicity
Toxicological information: Ingestion
Ecological information: Mobility in soil
Regulatory information: Canadian regulations
GHS: Classification