



Superior Solutions

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Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name FORMULA 50
Product use General Purpose Cleaner
Product code 0859
Date of issue 03/17/11 **Supersedes** 04/02/08

Emergency Telephone Numbers

For MSDS Information:

Technical Services Group
Telephone (780) 453-8100
(Business Hours 8:00am - 5:00pm)

For Medical or Transportation Emergency

CANUTEC (24 Hours)
(613) 996-6666 - Call Collect

Prepared By

Technical Services Group
11627 178th Street
Edmonton, Alberta T5S 1N6

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Section 2. Hazards Identification

Emergency overview

WARNING !

HARMFUL IF ABSORBED THROUGH SKIN. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Wash thoroughly after handling.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Absorbed through skin. Inhalation.

Eyes

Irritant. Inflammation of the eye is characterized by redness, watering and itching. Prolonged contact with eye tissue may cause severe and permanent eye injury (blindness).

Skin

Irritating to skin. permeator Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation

Irritating to respiratory system. Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness. Over-exposure by inhalation may cause respiratory irritation.

Ingestion

Not harmful if accidentally ingested in small quantities.

Chronic effects

Repeated eye exposure may produce chronic inflammation of the eye or corneal damage. Animal studies indicate a potential for liver, kidney or red blood cell damage. Relevance of these studies or exposure levels which might produce these effects in humans has not been established.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
SODIUM METASILICATE; silicic acid (H2-Si-O3) disodium salt; water glass	6834-92-0	3 - 7
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1 - 5
SODIUM DODECYLBENZENE SULFONATE; linear alkyl aryl sodium sulfonate; Sodium	25155-30-0	1 - 5
DDBSA		

Section 4. First Aid Measures

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point	Closed cup (Tagliabue.): Higher than 93.3°C (200°F).
Flammable Limits	Not applicable.
Flammability	Non-combustible.
Auto-ignition Temperature	
Fire-Fighting Procedures	Cool closed containers exposed to fire with water. Fire-fighters should wear appropriate protective equipment. Use an extinguishing agent suitable for the surrounding fire.
Fire hazard	In a fire or if heated, a pressure increase will occur and the container may burst.
Products of Combustion	carbon oxides (CO, CO ₂) and other unidentified organic compounds
Explosion hazard	Not available.

Section 6. Accidental Release Measures

Spill Clean up	Put on appropriate personal protective equipment (see section 8). Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
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Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling.
Storage	Keep container in a cool, well-ventilated area. S7/8- Keep container tightly closed and dry. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name

Ethylene Glycol Monobutyl Ether

Sodium Metasilicate

Exposure limits

ACGIH TLV (United States).

TWA: 20 ppm 8 hour(s). Form:

OSHA PEL (United States). Skin

TWA: 50 ppm 8 hour(s). Form:

Supplier Suggested (United States).

CEIL: 2 mg/m³ Form:

Personal Protective Equipment (PPE)

Eyes Splash goggles.

Hands and Body Gloves

Respiratory Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. A respirator is not needed under normal and intended conditions of product use. Use with adequate ventilation.



Section 9. Physical and Chemical Properties

Physical State	Thin liquid	Color Blue. [Dark]
pH	12.5 -13.0	Odor Butyl [Slight]
Boiling Point	104.4°C (219.9°F)	Vapor Pressure Not determined.
Specific Gravity	1.07	Vapor Density Not determined.
Solubility	Easily soluble in the following materials: cold water and hot water.	Evaporation Rate 1 (Water = 1)
Freezing Point		VOC (Consumer) 4.9%

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: oxidizing materials and acids.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Carcinogenicity Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
disodium metasilicate	LD50 Oral	Mouse	770 mg/kg	-
	LD50 Oral	Rat	>1000 mg/kg	-
	LD50 Oral	Rat	1153 mg/kg	-
ethylene glycol monobutyl ether	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LC50 Inhalation Vapor	Guinea pig	>633 ppm	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Guinea pig	1200 mg/kg	-
Sodium Dodecylbenzene Sulfonate	LD50 Oral	Rat	250 mg/kg	-
	LD50 Oral	Mouse	2000 mg/kg	-
	LD50 Oral	Rat	1260 mg/kg	-

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
ethylene glycol monobutyl ether	-	Acute EC50 >1000 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 >1000 mg/L Marine water	Crustaceans - Amphipod - Chaetogammarus marinus - Young - 5 mm	48 hours
	-	Acute LC50 1490000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 33 to 75 mm	96 hours
	-	Acute LC50 1250000 ug/L Marine water	Fish - Inland silverside - Menidia beryllina - 40 to 100 mm	96 hours
	-	Acute LC50 800000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Chronic NOEC 1000 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with applicable regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: - [None.]
Classification: - [Non-hazardous waste]
Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	Not regulated.	-	-	-		-
IMDG Class	Not available.	Not available.	Not available.	-		-

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment. Limited Quantity: Small quantities of controlled goods are not regulated as Dangerous Goods according to TDG regulations.

PG* : Packing group

Section 15. Regulatory Information

Canada

WHMIS (Canada) Class D-2B: Material causing other toxic effects (Toxic).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.