



Safety Data Sheet

REFINERY DEGREASER

WINTER FORMULA RTU

Section 1. Product and Company Identification

Product Name: REFINERY DEGREASER WINTER FORMULA RTU **Other Means of Identification:** Not applicable

Product Use: Low temp pipeline and process vessel cleaner **Restrictions On Use:** For industrial, institutional and professional use

Manufacturer: Mega-Lab Manufacturing Co. Ltd. **Address:** 25 Planchet Road, Concord, Ontario L4K 2C5
Telephone: (905) 532-9000 **Fax:** (905) 532-9003
Website: www.mega-lab.com

Emergency Telephone Number: CANUTEC 613-996-6666 or * 666 for cell phone

Section 2. Hazards Identification

GHS Classification: Eye Irritant – Category 2A
Skin Irritant – Category 2

GHS Label Elements:

Hazard Pictograms:



Signal Word: Warning

Hazard Statements: Causes serious eye irritation.
Causes skin irritation.

Precautionary Statements

Prevention: Wash skin thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs, get medical attention. IF SWALLOWED: get medical attention if you feel unwell.

Storage: Not applicable.

Disposal: Not applicable.

Other Hazards: None known.

Section 3. Composition / Information on Ingredients

Pure Substance / Mixture: Mixture

<u>Chemical Name</u>	<u>CAS#</u>	<u>Concentration (% by Weight)</u>
Propylene Glycol	57-55-6	30-60
d-Limonene	5989-27-5	1-5
Propylene Glycol N-Butyl Ether	5131-66-8	1-5
Alcohols, C9, ethoxylated	9002-92-0	1-5
Sodium Metasilicate	6834-92-0	1-5
Sodium 2-Ethyhexyl Sulfate	126-92-1	1-5

Section 4. First Aid Measures

Eye Contact: Immediately flush with plenty of cool running water. Get medical attention if irritation persists.
Skin Contact: Rinse with plenty of running water. Get medical attention if irritation persists.
Ingestion: Rinse mouth. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
Inhalation: Remove to fresh air and get medical attention if symptoms occur.

Most Important Symptoms/Effects, Acute and Delayed

Potential Acute Health Effects

Eye Contact: Causes serious eye irritation.
Skin Contact: Causes skin irritation.
Ingestion: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.

Over-Exposure Signs/Symptoms

Eye Contact: Redness / pain / irritation.
Skin Contact: Redness / irritation.
Ingestion: No symptoms known or expected.
Inhalation: No symptoms known or expected.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary

Notes to Physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific Treatments: No specific treatment.
First-Aider Protection: No special precautions are necessary for first aid responders. No action shall be taken involving any personal risk without suitable training.

See Toxicological Information (Section 11) for more detailed information on health effects and symptoms.

Section 5. Fire-Fighting Measures

- Suitable Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable Extinguishing Media:** None known.
- Specific Hazards During Fire-fighting:** Not flammable or combustible. High heat or fire may cause container to melt or burst due to a pressure increase.
- Hazardous Combustion Products:** Decomposition products may include carbon oxides, nitrogen oxides.
- Fire-Fighter Special Protective Equipment:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Fire-Fighter Special Precautions:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk without suitable training. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Refer to protective equipment and precautions listed in Sections 7 and 8.

Methods and Materials for Containment and Cleaning Up

- Small spill** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. See Section 13 for additional disposal information.

Environmental Precautions

Do not allow contact with soil, surface or ground water.

Section 7. Handling and Storage

Precautions for Safe Handling

- Protective Measures:** Put on appropriate personal protective equipment (see Section 8).
- Advice on Safe Handling:** Wash hands thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures.

Conditions for Safe Storage: Keep out of reach of children. Keep container tightly closed. Store in suitably labelled original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

Section 8. Exposure Controls / Personal Protection

Components with Workplace Control Parameters

Ingredient	List Name	TWA (8 hours)			STEL (15 minutes)			Ceiling			Notations
		ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
d-Limonene	US AIHA 5/2010	30	-	-	-	-	-	-	-	-	-
Propylene Glycol	AIHA WEEL	-	10	-	-	-	-	-	-	-	-

Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal Protective Equipment

- Eye Protection:** Safety glasses with side shields.
- Hand Protection:** Wear chemical resistant, impervious gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin Protection:** Wear other protective equipment / clothing as necessary to prevent skin contact.
- Respiratory Protection:** No special protective equipment required under normal use conditions.
- Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. See Section 7.

Section 9. Physical and Chemical Properties

Appearance:

- Physical State:** Liquid
- Colour :** Clear pale orange to clear
- Odour:** d-Limonene / Orange
- Odour Threshold:** No data available
- pH:** 11.5 - 12.5
- Melting Point/Freezing Point :** Freeze Point -28°C
- Initial Boiling Point/Boiling Range:** >100°C
- Flash Point (Closed Cup):** Not applicable. (Product does not sustain combustion.)
- Evaporation Rate:** No data available
- Flammability (Solid, Gas):** Not applicable (liquid)
- Upper Explosive (Flammable) Limit :** No data available
- Lower Explosive (Flammable) Limit :** No data available
- Vapour Pressure:** No data available
- Vapour Density:** No data available
- Relative Density:** 1.04
- Solubility:** Soluble in water
- Partition Coefficient (n-octanol/water):** No data available
- Auto-Ignition Temperature:** No data available
- Decomposition Temperature:** No data available
- Viscosity:** <25 cps

Section 10. Stability and Reactivity

- Reactivity:** No specific test data related to reactivity available for this product or its ingredients
- Chemical stability:** Stable under normal conditions
- Possibility of Hazardous Reactions:** Under normal storage and use conditions, hazardous reactions will not occur
- Conditions to Avoid:** None known
- Incompatible Materials:** None known

Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposition products during combustion may include carbon oxides, nitrogen oxides.

Section 11. Toxicological Information

Information on Likely Routes of Exposure: Eye contact, Skin contact, Ingestion, Inhalation

Potential Acute Health Effects

Eye Contact: Causes eye irritation.
Skin Contact: Causes skin irritation.
Ingestion: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Eye Contact: Redness / pain / irritation.
Skin Contact: Redness / irritation.
Ingestion: No symptoms known or expected.
Inhalation: No symptoms known or expected.

Delayed and Chronic Effects from Short and Long Term Exposure: No known significant effects or critical hazards.

Toxicity

Product Acute Oral Toxicity Estimate: > 5,000 mg/kg
 Product Acute Dermal Toxicity Estimate: > 5,000 mg/kg
 Product Acute Inhalation Toxicity Estimate: No data available
 Aspiration Toxicity: No data available
 Respiratory or Skin Sensitization: No data available
 Carcinogenicity: No known significant effects or critical hazards
 Reproductive Toxicity: No known significant effects or critical hazards
 Mutagenicity: No known significant effects or critical hazards
 Teratogenicity: No known significant effects or critical hazards
 Developmental Effects: No known significant effects or critical hazards
 Specific Target Organ Toxicity (single exposure): No known significant effects or critical hazards
 Specific Target Organ Toxicity (repeated exposure): No known significant effects or critical hazards

Toxicity Data for Ingredients

Ingredient	Test	Route	Result	Species
Propylene Glycol	LD ₅₀	Oral	21800 mg/kg	Rat
	LD ₅₀	Dermal	20800 mg/kg	Rabbit
	LC ₅₀ (4 hr)	Inhalation	>158 mg/L	Rat
d-Limonene	LD ₅₀	Oral	4400 mg/kg	Rat
	LD ₅₀	Dermal	>5000 mg/kg	Rabbit
1 Propylene Glycol N-Butyl Ether	LD ₅₀	Oral	2940 mg/kg	Rat
	LD ₅₀	Oral	3300 mg/kg	Rat
	LD ₅₀	Oral	4975 mg/kg	Rat
	LD ₅₀	Oral	5230 mg/kg	Rat
	LD ₅₀	Dermal	1340 mg/kg	Rabbit
	LD ₅₀	Dermal	3130 mg/kg	Rabbit
	LD ₅₀	Dermal	>2000 mg/kg	Rabbit

Ingredient	Test	Route	Result	Species
Sodium Metasilicate	LD ₅₀	Oral	1153 mg/kg	Rat
	LD ₅₀	Oral	>1000 mg/kg	Rat
	LD ₅₀	Oral	770 mg/kg	Mouse
Alcohols, C9, ethoxylated	LD ₅₀	Dermal	72000 mg/kg	Rabbit
	LD ₅₀	Oral	4150 mg/kg	Rat
	LD ₅₀	Oral	8600 mg/kg	Rat
Sodium 2-Ethyhexyl Sulfate	LD ₅₀	Oral	2840 mg/kg	Rat
	LD ₅₀	Dermal	>2000 mg/kg	Rabbit

Section 12. Ecological Information

Ecotoxicity

Product/Ingredient Name	Result	Species	Exposure
Propylene Glycol	Acute LC50 46500 mg/L	Flathead Minnow	96 hours
	Acute EC50 43500 mg/l	Crustacea – Water flea (Daphnia magna)	48 hours
	Acute EC50 19000 mg/l	Green Algae	96 hours
d-Limonene	Acute EC50 0.36 mg/l	Crustacea – Water flea (Daphnia magna)	48 hours
	Acute LC50 0.7 mg/l	Fish - Fathead minnow	96 hours
Sodium Metasilicate	Acute LC50 210 mg/l	Fish (Brachydanio rerio)	96 hours
	Acute EC50 1700 mg/l	Invertebrates (Daphnia magna)	48 hours
	EC50 (biomass) 207 mg/L	Algae/cyanobacteria (Scenedesmus subspicatus)	72 hours
	EC50 (growth rate): > 345.4 mg/L	Algae/cyanobacteria (Scenedesmus subspicatus)	72 hours
Ethoxylated lauryl alcohol	Acute LC50 10000 to 25000 µg/l	Crustaceans – Sphaeroma serratum	48 hours
	Acute LC50 6460-7580 µg/l Fresh Water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1.4 mg/l	Fish	96 hours
	Acute LC50 1400 µg/l Fresh Water	Fish - Cyprinus carpio	96 hours
	Acute LC50 1500 µg/l Fresh Water	Fish - Salmo salar	96 hours
Sodium 2-Ethyhexyl Sulfate	EC50 511 mg/L	Algae	72 hours
	EC50 483 mg/L	Daphnia	48 hours
	Acute LC50 >40 mg/l	Fish	96 hours

Persistence and Degradability

Product/Ingredient Name	Aquatic Half-Life	Photolysis	Biodegradability
Propylene Glycol	No data available	No data available	Readily biodegradable
Ethoxylated lauryl alcohol	No data available	No data available	Readily biodegradable
d-Limonene	No data available	No data available	Readily biodegradable
Sodium 2-Ethyhexyl Sulfate	No data available	No data available	Readily biodegradable

Bioaccumulative Potential

No data available

Mobility in Soil

No data available

Other Adverse Effects

No known significant effects or critical hazards

Section 13. Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and any local, provincial/state and federal regulations. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Empty containers may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land Transport (TDG)

Not classified as dangerous goods

Sea Transport (IMDG/IMO)

Not classified as dangerous goods

Section 15. Regulatory Information

Canadian Domestic Substances List (DSL)

All components of this product are listed or exempted.

United States TSCA Inventory

All components of this product are listed or exempted.

Hazardous Material Information System: **Health:** 1 **Flammability:** 0 **Physical Hazards:** 0

National Fire Protection Association: **Health:** 1 **Flammability:** 0 **Instability:** 0 **Special Hazard:** -

Section 16. Other Information

Prepared By: Regulatory Affairs

Telephone: (905) 532-9000

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To the best of our knowledge, the information provided in this Safety Data Sheet is accurate at the date of its publication. However, neither the above-named manufacturer or 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.