

Material Safety Data Sheet

Dégraissol

1. Product and company identification

Product name	: Dégraissol
Material uses	: Degreaser heavy duty.
Supplier/Manufacturer	: V-TO Inc. 2975, Nelson Saint-Hyacinthe QC J2S 1Y5 Tél: (450) 774-6849 Fax:(450) 774-4334
Responsible name	: Atrion Regulatory Services, Inc.
In case of emergency	: CANUTEC (613) 996-6666 (Canada)

2. Hazards identification

Physical state	: Liquid. [Clear.]
Odor	: Characteristic.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview	: DANGER! FLAMMABLE LIQUID AND VAPOR. COMBUSTIBLE. MAY BE FATAL IF INHALED. HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. Flammable liquid. Very toxic by inhalation. Harmful in contact with skin and if swallowed. Severely irritating to eyes. Irritating to respiratory system and skin. Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact.
Potential acute health effects	
Inhalation	: Very toxic by inhalation. Irritating to respiratory system.
Ingestion	: Toxic if swallowed.
Skin	: Toxic in contact with skin. Irritating to skin.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.
Potential chronic health effects	
Chronic effects	: Contains material that can cause target organ damage.
Carcinogenicity	: 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.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which causes damage to the following organs: blood, kidneys, liver, lymphatic system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.
Over-exposure signs/symptoms	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing

2. Hazards identification

- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Distillates (petroleum), hydrotreated light	64742-47-8	60 - 100
2-Butoxyethanol	111-76-2	5 - 10

Canada

Name	CAS number	%
Distillates (petroleum), hydrotreated light	64742-47-8	60 - 100
2-Butoxyethanol	111-76-2	5 - 10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

- Flammability of the product** : Flammable.
- Extinguishing media**
- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
 - Not suitable** : Do not use water jet.
- Special exposure hazards** : 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 or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
 - Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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 (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

7. Handling and storage

- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Product name

Distillates (petroleum), hydrotreated light

2-Butoxyethanol

Exposure limits

ACGIH TLV (United States, 1/2008). Absorbed through skin.
TWA: 200 mg/m³ 8 hour(s).

ACGIH TLV (United States, 1/2008).
TWA: 20 ppm 8 hour(s).

NIOSH REL (United States, 12/2001). Absorbed through skin.
TWA: 24 mg/m³ 10 hour(s).
TWA: 5 ppm 10 hour(s).

OSHA PEL (United States, 11/2006). Absorbed through skin.
TWA: 240 mg/m³ 8 hour(s).
TWA: 50 ppm 8 hour(s).

Canada

Product name

Distillates (petroleum), hydrotreated light

2-Butoxyethanol

Exposure limits

CA British Columbia Provincial (Canada, 7/2007). Absorbed through skin.
TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hour(s).

CA Alberta Provincial (Canada, 10/2006). Absorbed through skin.
8 hrs OEL: 97 mg/m³ 8 hour(s).
8 hrs OEL: 20 ppm 8 hour(s).

CA British Columbia Provincial (Canada, 7/2007).
TWA: 20 ppm 8 hour(s).

CA Ontario Provincial (Canada, 3/2007). Absorbed through skin.
TWAEV: 20 ppm 8 hour(s).

CA Quebec Provincial (Canada, 12/2006).
TWAEV: 20 ppm 8 hour(s).
TWAEV: 97 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Eyes** : Splash goggles.

8 . Exposure controls/personal protection

- Skin** : Not required under normal conditions of use.
Respiratory : Vapor respirator.
Hands : Natural rubber (latex).

Personal protective equipment (Pictograms) :



HMIS Code/Personal protective equipment : -

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

- Physical state** : Liquid. [Clear.]
Flash point : Closed cup: 43°C (109.4°F) [Tagliabue.]
Flammable limits : Lower: 1.1%
 Upper: 6%
Color : Yellow. [Light]
Odor : Characteristic.
Boiling/condensation point : Weighted average: 195.57°C (384°F)
Melting/freezing point : Weighted average: -55.78°C (-68.4°F)
Specific gravity : 0.795
Vapor density : 4.9 [Air = 1]
Evaporation rate : Weighted average: 0.1 compared with Butyl acetate.
Viscosity : Dynamic: 6 mPa·s (6 cP)
Dispersibility properties : Partially dispersible in the following materials: cold water.

10 . Stability and reactivity

- Stability** : The product is stable.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
 Slightly flammable in the presence of the following materials or conditions: heat.
 Risks of explosion of the product in presence of mechanical impact: Not applicable.
 Risks of explosion of the product in presence of static discharge: Not applicable.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
2-Butoxyethanol	Rabbit	220 mg/kg	LD50 Dermal	-
	Rat	917 mg/kg	LD50 Oral	-
	Rat	250 mg/kg	LD50 Oral	-
	Rat	2900 mg/m ³	LC50 Inhalation Vapor	7 hours
	Rat	450 ppm	LC50 Inhalation Gas.	4 hours

11 . Toxicological information

- Inhalation** : Very toxic by inhalation. Irritating to respiratory system.
Ingestion : Toxic if swallowed.
Skin : Toxic in contact with skin. Irritating to skin.
Eyes : Severely irritating to eyes. Risk of serious damage to eyes.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Distillates (petroleum), hydrotreated light	A3	-	-	-	-	-
2-Butoxyethanol	A3	3	-	-	-	-

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Species	Exposure	Result
Distillates (petroleum), hydrotreated light	Fish	96 hours	Acute LC50 2900 ug/L
	Fish	4 days	Acute LC50 2400 ug/L
2-Butoxyethanol	Fish	96 hours	Acute LC50 1490000 ug/L
	Fish	96 hours	Acute LC50 1250000 ug/L
	Crustaceans	48 hours	Acute LC50 800000 to 1000000 ug/L

13 . Disposal considerations



Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

AERG : 131

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-Butoxyethanol)	3 (6.1)	II	 	-

14 . Transport information

TDG Classification	UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2- Butoxyethanol)	3 (6.1)	II	 The pictogram shows a white diamond with a black skull and crossbones (Toxic) and a red diamond with a white flame (Flammable).	-
IMDG Class	UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2- Butoxyethanol)	3 (6.1)	II	 The pictogram shows a white diamond with a black skull and crossbones (Toxic) and a red diamond with a white flame (Flammable).	-
IATA-DGR Class	UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2- Butoxyethanol)	3 (6.1)	II	 The pictogram shows a white diamond with a black skull and crossbones (Toxic) and a red diamond with a white flame (Flammable).	-

PG* : Packing group

15 . Regulatory information

United States

HCS Classification

: Combustible liquid
Highly toxic material
Irritating material
Target organ effects

U.S. Federal regulations

: **United States inventory (TSCA 8b):** All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Distillates (petroleum), hydrotreated light; 2-Butoxyethanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification
 Distillates (petroleum), hydrotreated light: Delayed (chronic) health hazard; 2-Butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention No products were found.
Clean Air Act (CAA) 112 regulated flammable substances No products were found.
Clean Air Act (CAA) 112 regulated toxic substances No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	: 2-Butoxyethanol	111-76-2	5 - 10
Supplier notification	: 2-Butoxyethanol	111-76-2	5 - 10

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

15 . Regulatory information

State regulations

- : **Connecticut Carcinogen Reporting:** None of the components are listed.
- Connecticut Hazardous Material Survey:** None of the components are listed.
- Florida substances:** None of the components are listed.
- Illinois Chemical Safety Act:** None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- Louisiana Reporting:** None of the components are listed.
- Louisiana Spill:** None of the components are listed.
- Massachusetts Spill:** None of the components are listed.
- Massachusetts Substances:** The following components are listed: 2-Butoxyethanol
- Michigan Critical Material:** None of the components are listed.
- Minnesota Hazardous Substances:** None of the components are listed.
- New Jersey Hazardous Substances:** The following components are listed: 2-Butoxyethanol
- New Jersey Spill:** None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- New York Acutely Hazardous Substances:** None of the components are listed.
- New York Toxic Chemical Release Reporting:** None of the components are listed.
- Pennsylvania RTK Hazardous Substances:** The following components are listed: 2-Butoxyethanol
- Rhode Island Hazardous Substances:** None of the components are listed.

Canada

WHMIS (Canada)

- : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
- Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
- Class D-2A: Material causing other toxic effects (Very toxic).



Canadian lists

- : **CEPA Toxic substances:** None of the components are listed.
- Canadian ARET:** None of the components are listed.
- Canadian NPRI:** The following components are listed: Hydrotreated light distillate; 2-Butoxyethanol
- Alberta Designated Substances:** None of the components are listed.
- Ontario Designated Substances:** None of the components are listed.
- Quebec Designated Substances:** None of the components are listed.

Canada inventory

- : All components are listed or exempted.

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.

International regulations

International lists

- : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. COMBUSTIBLE. MAY BE FATAL IF INHALED. HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Hazardous Material Information System (U.S.A.) :

Health	3
Fire hazard	2
Physical Hazard	0
Personal protection	-

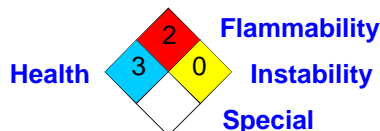
HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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Notice to reader

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.