SAFETY DATA SHEET

ENERGIE

Section 1. Identification

Product identifier : ENERGIE

Product code : 05-10040

Other means of : Not available.
identification

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Industrial applications: Degreaser

Only use this product as directed. Read label before using.

Supplier's details : Sani-Marc Inc.

42 rue de l'Artisan Victoriaville, Qc G6P 7E3 1-819-758-1541

Emergency telephone number (with hours of operation) : 1-800-361-7691 (8am to 5pm Monday to Thursday) (8am to 4pm Friday)

Section 2. Hazard identification

Classification of the substance or mixture

: SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms





Signal word : Danger

Hazard statements : H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

Precautionary statements

Prevention : P280 - Wear protective gloves: < 1 hour (breakthrough time): Chemical-resistant,

impervious gloves. Wear protective clothing. Wear eye or face protection:

Recommended: splash goggles. P261 - Avoid breathing vapor.

P264 - Wash thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

Response : P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep

comfortable for breathing. Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON

CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER

or doctor.

P363 - Wash contaminated clothing before reuse.

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 1/11

Section 2. Hazard identification

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

Storage : P405 - Store locked up or keep under supervision.

Disposal P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture Other means of : Not available. identification

Ingredient name	% (w/w)	CAS number
2-(2-butoxyethoxy)ethanol	1 - 5	112-34-5
Dodecylbenzenesulphonic acid (C12)	1 - 5	27176-87-0
Alcohols, C9-11, ethoxylated	1 - 5	68439-46-3
Sodium metasilicate	0.5 - 1.5	6834-92-0
d-Limonene	0.1 - 1	5989-27-5

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : In case of contact with eyes, flush with fresh water. Check for and remove any contact lenses. Continue rinsing. If irritation persists, get medical attention. Chemical burns must be treated promptly by a physician. Get medical attention if

blistering occurs or redness persists.

: Move victim to fresh air and keep at rest in a position comfortable for breathing. If it Inhalation

is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Get medical attention if adverse health

effects persist or are severe. Maintain an open airway.

Skin contact Rinse with water. Wash with plenty of soap and water. Remove contaminated

clothing and wash it before reuse. Wash contaminated clothing thoroughly with water before removing them, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure.

Ingestion : Rinse mouth with water. Do not induce vomiting unless directed to do so by medical

personnel. Chemical burns must be treated promptly by a physician. Get medical

attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : May cause eye burn

Inhalation : Inhalation of vapors or mist may cause respiratory tract irritation.

Skin contact : May cause an allergic skin reaction. May cause skin burns

Ingestion : May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Date of issue/Date of revision : 2024-05-09 : 2024-05-09 Version: 0.07 2/11 Date of previous issue

Section 4. First-aid measures

: Adverse symptoms may include the following: **Eye contact**

> pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

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.

Protection of first-aiders : No action should 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 them, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing

media

Use an extinguishing agent suitable for the surrounding fire.

: None known.

Specific hazards arising from the chemical

Hazardous thermal

: In a fire or if heated, a pressure increase will occur and the container may burst.

decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training.

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.

Date of issue/Date of revision : 2024-05-09 : 2024-05-09 Version : 0.07 3/11 Date of previous issue

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action should 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Eye/face protection

: Continued or severe exposures might required to wear a face shield or chemical splash goggles. It is minimally suggested to wear safety glasses while using or handling this product.

Hand protection **Body protection** Other skin protection : It is suggested to wear chemical-reisitant gloves while using or handling this product.

: No special protective clothing is required.

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: No specific protective equipment required under normal use conditions.

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 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. 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). 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

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.

Date of issue/Date of revision : 2024-05-09 : 2024-05-09 Version : 0.07 Date of previous issue

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Separate from acids. 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. Keep out of reach of children. Store away from incompatible materials:

Reactive or incompatible with acids.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-(2-butoxyethoxy)ethanol	CA Ontario Provincial (Canada, 6/2019). TWA: 10 ppm 8 hours. Form: Inhalable fraction and vapour.
d-Limonene	OARS WEEL (United States, 4/2022). TWA: 30 ppm 8 hours.

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

Individual protection measures

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing.

Eye/face protection

: Continued or severe exposures might required to wear a face shield or chemical splash goggles. It is minimally suggested to wear safety glasses while using or handling this product.

Skin protection

Hand protection Body protection : It is suggested to wear chemical-reisitant gloves while using or handling this product.

: No special protective clothing is required.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: No specific protective equipment required under normal use conditions.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid. [Transparent liquid]

Color : Yellow-Green

Odor : Citrus

Odor threshold : Not available.

pH : 12.5

Melting point/freezing point : Not available.

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 5/11

Section 9. Physical and chemical properties

Boiling point, initial boiling point, and boiling range

: Not available.

Flash point

Closed cup Open cup °F °C °F Ingredient name °C Method **Method** (R)-p-mentha-1,8-diene 51 123.8 EU A.9 93.3 199.9 Alcohols, C7-21, ethoxylated 2-(2-butoxyethoxy) 115 239 Tagliabue. 116 240.8 Cleveland. ethanol dodecylbenzenesulphonic 149 300.2 Pensky-148.9 300 Martens.

Evaporation rate Flammability Lower and upper explosion limit/flammability limit

Not available. Not available.

Not available.

Vapor pressure

Vapor Pressure at 20°C Vapor pressure at 50°C Ingredient name mm Hg **kPa** Method kPa Method mm Hg water 17.5 2.3 (R)-p-mentha-1,8-diene 0.2 1.5 Alcohols, C7-21, <0.1 <0.013 ethoxylated 0.022 0.0029 2-(2-butoxyethoxy) ethanol dodecylbenzenesulphonic 0

Relative vapor density Not available. **Relative density** Not available. **Density** 1.037 g/cm³ **Solubility** Not available. Solubility in water Not available. Partition coefficient: n-Not applicable.

octanol/water **Auto-ignition temperature**

Ingredient name	°C	°F	Method
2-(2-butoxyethoxy)ethanol	210	410	DIN 51794
(R)-p-mentha-1,8-diene	237	458.6	
tetrasodium N,N-bis (carboxylatomethyl)-L-glutamate	460	860	IEC 1241-2-1

Not available. **Decomposition temperature Viscosity** Not available. Flow time (ISO 2431)

Not available.

Particle characteristics

Median particle size : Not applicable.

Date of issue/Date of revision : 2024-05-09 : 2024-05-09 Version : 0.07 6/11 Date of previous issue

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions

: May cause an exothermic reaction in presence of acids.

Conditions to avoid : No specific data.

Incompatible materials: Reactive or incompatible with acids.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
, , , , , , , , , , , , , , , , , , , ,	LD50 Oral	Rat	3660 mg/kg	-
Dodecylbenzenesulphonic acid (C12)	LD50 Oral	Rat	890 mg/kg	-
Alcohols, C9-11, ethoxylated	LD50 Dermal	Rabbit	2001 mg/kg	-
	LD50 Oral	Rat	2001 mg/kg	-
Sodium metasilicate	LD50 Oral	Rat	1153 mg/kg	-
d-Limonene	LD50 Dermal	Rabbit	5000 mg/kg	-
	LD50 Oral	Rat	4400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-(2-butoxyethoxy)ethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20	-
		D 11.11		mg	
	Eyes - Severe irritant	Rabbit	-	20 mg	-
Dodecylbenzenesulphonic acid (C12)	Skin - Severe irritant	Rabbit	-	0.5 MI	-
Sodium metasilicate	Skin - Moderate irritant	Guinea pig	-	24 hours 250 mg	-
	Skin - Severe irritant	Human	-	24 hours 250 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 250 mg	-
d-Limonene	Skin - Mild irritant	Rabbit	-	24 hours 10 %	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 7/11

Section 11. Toxicological information

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
d-Limonene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : May cause eye burn

Inhalation : Inhalation of vapors or mist may cause respiratory tract irritation.
 Skin contact : May cause an allergic skin reaction. May cause skin burns

Ingestion: May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 8/11

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
ENERGIE	10579.3	58749.3	N/A	N/A	N/A
2-(2-butoxyethoxy)ethanol	3660	2700	N/A	N/A	N/A
Dodecylbenzenesulphonic acid (C12)	890	N/A	N/A	N/A	N/A
Alcohols, C9-11, ethoxylated	500	2001	N/A	N/A	N/A
Sodium metasilicate	1153	N/A	N/A	N/A	N/A
d-Limonene	4400	5000	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-(2-butoxyethoxy)ethanol	Acute LC50 1300 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
Dodecylbenzenesulphonic acid (C12)	Acute EC50 11200 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
,	Acute LC50 4580 μg/l Marine water	Crustaceans - <i>Tisbe bulbisetosa</i> - Adult	48 hours
Alcohols, C9-11, ethoxylated	Acute EC50 55 mg/l	Algae	72 hours
•	Acute EC50 7.5 mg/l	Daphnia	48 hours
	Acute EC50 2686 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 7.5 mg/l	Fish	96 hours
Sodium metasilicate	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 2320 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
d-Limonene	Acute EC50 421 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 688 μg/l Fresh water	Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

Conclusion/Summary: Readily biodegradable according to OECD 301D method

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ENERGIE	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-(2-butoxyethoxy)ethanol	1	-	Low
Dodecylbenzenesulphonic acid (C12)	4.78	-	High
Alcohols, C9-11, ethoxylated	-	237	Low
d-Limonene	4.38	1022	High

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 9/11

Section 13. Disposal considerations

Disposal methods

: 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 waste disposal legislation and any regional local authority requirements. 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. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
TDG Classification	UN1760	Corrosive liquid, n.o.s. (disodium metasilicate)	8	III	No.

Additional information

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available.

to IMO instruments

Section 15. Regulatory information

Canadian lists

Canadian NPRI

: The following components are listed: other glycol ethers and acetates (and their isomers)

CEPA Toxic substances

: None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Date of issue/Date of revision : 2024-05-09 : 2024-05-09 Version : 0.07 10/11 Date of previous issue

Section 15. Regulatory information

Inventory list

Canada : All components are listed or exempted.

United States : Not determined.

Section 16. Other information

History

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Key to abbreviations : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships.

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available SGG = Segregation Group UN = United Nations

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1	On basis of test data On basis of test data Calculation method

References : Not available.

▼ Indicates information that has changed from previously issued version.

Notice to reader

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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.

Date of issue/Date of revision : 2024-05-09 Date of previous issue : 2024-05-09 Version : 0.07 11/11