

SECTION 1: Identification

1.1. Product identifier

Product name : TOUGH TIGER
 Product code : 1301160

1.2. Recommended use and restrictions on use

Recommended use : Low foaming cleaner degreaser
 Restrictions on use : Food Plant, Industrial and Institutional use only

1.3. Supplier

Project Clean Inc.
 12 James St N, Suite 202
 Hamilton, Ontario L8R 2J9
 T 1 800 663 9925
regulatory@projectclean.com - www.projectclean.ca

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Canada	CHEMTREC Chemical Emergency	www.chemtrec.com	1 800 424 9300	24hr/day 7days/week within USA and Canada
Canada	CANUTEC Transportation Emergency	www.canutec.com	1 888 226 8832 *666 on a cell phone	24hr/day 7days/week within USA and Canada

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Corrosive to metals, Category 1	H290	May be corrosive to metals.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Specific target organ toxicity – Repeated exposure, Category 1	H372	Causes damage to organs through prolonged or repeated exposure.

Full text of H-statements: see section 16



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2.2. GHS Label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS CA) :  

Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H290 - May be corrosive to metals.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS CA) : P234 - Keep only in original container.
P260 - Do not breathe fume, gas, mist, vapours, or spray.
P264 - Wash hands and affected areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves and eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on the product SDS).
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P390 - Absorb spillage to prevent material damage.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents and or container to hazardous or special waste collection point, in accordance with local, regional, national and or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	% w/w
Butyl glycoether	2-Butoxyethanol	CAS-No.: 111-76-2	5 – 10
Sodium hydroxide	Sodium hydroxide	CAS-No.: 1310-73-2	1 – 5
C9-11, Ethoxylated Alcohol	(C9-C11) Alkyl alcohol, ethoxylate	CAS-No.: 68439-46-3	0.5 – 1.5

*The exact concentrations have been withheld as a trade secret. Les concentrations exactes ont été retenues en tant que secret commercial.

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice or attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.
- First-aid measures general : Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Serious damage to eyes.
- Symptoms/effects after ingestion : None under normal conditions.
- Chronic symptoms : No effects known.
- Expected Symptoms/Effects, Acute and Delayed : May cause dermatitis, eye irritation, corneal oedema and chemical burns. May cause skin irritation, dermatitis, or skin burns.

4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use a heavy water stream.

5.3. Specific hazards arising from the hazardous product

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Do not breathe fume, mist, vapours, or spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls or personal protection".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe fume, mist, vapours, or spray. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container.
- Incompatible materials : Metals. Nitrites.
- Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)	
USA - OSHA - Occupational Exposure Limits	
Local name	Sodium hydroxide
OSHA PEL TWA	2 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Butyl glycoether (111-76-2)	
USA - OSHA - Occupational Exposure Limits	
Local name	2-Butoxyethanol
OSHA PEL TWA	240 mg/m ³
	50 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Orange. Clear liquid.
Colour	: Orange
Odour	: No added fragrance
Odour threshold	: No data available
pH	: 11.5 – 12.5
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: No data available
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: No data available
Upper and lower flammability or explosive limit	: No data available, Not applicable
Vapour pressure	: No data available

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Relative vapour density at 20°C	: No data available
Relative density	: 1 – 1.05
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: Thin like water
Explosive properties	: Product is not explosive.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: metals. Nitrites. Strong acids. Halogenated hydrocarbons.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

TOUGH TIGER	
LD50 oral rat	15719.6 mg/kg
LD50 dermal rat	56235.9 mg/kg
LC50 Inhalation - Rat	18.8 mg/l/4h
ATE CA (oral)	15719.6 mg/kg bodyweight
ATE CA (Dermal)	56235.9 mg/kg bodyweight
ATE CA (vapours)	18.8 mg/l/4h
ATE CA (dust,mist)	18.8 mg/l/4h

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Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CA (Dermal)	1350 mg/kg bodyweight
Butyl glycoether (111-76-2)	
LD50 oral rat	1746 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 oral	1414 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Guinea pig, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 4.26 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE CA (oral)	1414 mg/kg bodyweight
ATE CA (Gases)	4500 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h
C9-11, Ethoxylated Alcohol (68439-46-3)	
LD50 oral rat	1378 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
ATE CA (oral)	1378 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Butyl glycoether (111-76-2)	
NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study), Remarks on results: other:

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Butyl glycolether (111-76-2)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eyes contact. Inhalation. Ingestion.
Expected Symptoms/Effects, Acute and Delayed	: May cause dermatitis, eye irritation, corneal oedema and chemical burns. May cause skin irritation, dermatitis, or skin burns.
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: None under normal conditions.
Chronic symptoms	: No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

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Partition coefficient n-octanol/water (Log Kow)	No data available
Butyl glycolether (111-76-2)	
LC50 - Fish [1]	1474 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	1550 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	1840 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	911 mg/l Source: ECHA

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Butyl glycoether (111-76-2)	
NOEC chronic fish	≥ 100 mg/l Test organisms (species): <i>Oryzias latipes</i> Duration: '14 d'
NOEC (chronic)	100 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value, BASF test, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.451 – 0.882 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.2. Persistence and degradability

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Persistence and degradability Contains readily biodegradable component(s).

Butyl glycoether (111-76-2)	
Persistence and degradability	Readily biodegradable in water.

C9-11, Ethoxylated Alcohol (68439-46-3)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

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Bioaccumulative potential No bioaccumulation data available.

Partition coefficient n-octanol/water (Log Kow) No data available

Butyl glycoether (111-76-2)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value, BASF test, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.451 – 0.882 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

C9-11, Ethoxylated Alcohol (68439-46-3)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

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Ecology - soil No (test) data on mobility of the substance available.

Partition coefficient n-octanol/water (Log Kow) No data available

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Butyl glycoether (111-76-2)	
Surface tension	65.03 mN/m (20 °C, 2 g/l)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.451 – 0.882 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value, BASF test, 25 °C)

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents and or container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.
Ecological information : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (TDG) : Not applicable

14.3. Transport hazard class(es)

TDG

Transport hazard class(es) (TDG) : Not applicable

14.4. Packing group

Packing group (TDG) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

TDG

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List)

Butyl glycoether (111-76-2)

Listed on the Canadian DSL (Domestic Substances List)

C9-11, Ethoxylated Alcohol (68439-46-3)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Butyl glycoether (111-76-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

C9-11, Ethoxylated Alcohol (68439-46-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16: Other information

Issue date : 02/29/2024

Full text of H-statements:

H290	May be corrosive to metals.
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Full text of H-statements:	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H372	Causes damage to organs through prolonged or repeated exposure.

It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. Project Clean Inc. will accept no liability for damages or loss incurred from the improper handling and use of this product.

The information provided in the Safety Data Sheet has been obtained from current sources and is believed to be reliable.