SECTION 1: Identification

1.1. Product identifier

Product name : COMBAT
Product code : 1100190

1.2. Recommended use and restrictions on use

Recommended use : Dishwashing machine care agents
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 1	H314	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Carcinogenicity, Category 2	H351	Suspected of causing cancer.

Full text of H-statements: see section 16

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.
H314 - Causes severe skin burns and eye damage.
H351 - Suspected of causing cancer.
H318 - Causes serious eye damage.

Precautionary statements (GHS CA) :
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P234 - Keep only in original container.
P260 - Do not breathe dust, mist, vapours, or spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see supplemental first aid instruction on the product SDS).
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
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

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	% w/w
Trisodium nitrilotriacetate	N,N-bis(carboxymethyl)glycine, trisodium salt	CAS-No.: 5064-31-3	10 – 30
Sodium hydroxide	Sodium hydroxide	CAS-No.: 1310-73-2	7 – 13

**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 : Rinse skin with water or shower. Take off immediately all contaminated clothing. Call a physician immediately.

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 : Rinse mouth. Do not induce vomiting. Call a physician immediately.

First-aid measures general : Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

Chronic symptoms : No effects known.

Expected Symptoms/Effects, Acute and Delayed : Irritating to the digestive tract. May cause burns. 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.

5.2. Unsuitable extinguishing media

No additional information available

5.3. Specific hazards arising from the hazardous product

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.4. Special protective equipment and precautions for fire-fighters

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 : Avoid contact with skin and eyes. Do not handle until all safety precautions have been read and understood. Clean up any spills as soon as possible, using an absorbent material to collect it.

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses (EN 166). Protective goggles (EN 166). Protective clothing (EN 14605 or EN 13034).

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe fume, mist, vapours, or spray.

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 : Ventilate area. Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe fume, mist, vapours, or spray.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Metals.

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 [1]	2 mg/m³
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.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:
Nitrile rubber/PVC

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	:	red. Clear liquid.
Colour	:	red
Odour	:	No added fragrance
Odour threshold	:	No data available
pH	:	> 13
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	:	> 100 °C
Auto-ignition temperature	:	Not self-igniting
Decomposition temperature	:	No data available
Upper and lower flammability or explosive limit	:	Not flammable
Vapour pressure	:	No data available
Relative vapour density at 20°C	:	No data available
Relative density	:	1.2 – 1.5
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.
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

COMBAT	
LD50 oral rat	8227 mg/kg
LD50 dermal rat	12162.2 mg/kg
ATE CA (oral)	8227 mg/kg bodyweight
ATE CA (Dermal)	12162.2 mg/kg bodyweight

Trisodium nitrilotriacetate (5064-31-3)	
LD50 oral rat	1740 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	> 5 mg/l (4 h, Rat, Male, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CA (oral)	1740 mg/kg bodyweight

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CA (Dermal)	1350 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Likely routes of exposure : Skin and eyes contact. Inhalation. Ingestion.
Expected Symptoms/Effects, Acute and Delayed : Irritating to the digestive tract. May cause burns. May cause dermatitis, eye irritation, corneal oedema and chemical burns. May cause skin irritation, dermatitis, or skin burns.
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.
Chronic symptoms : No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Not classified

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

Trisodium nitrilotriacetate (5064-31-3)	
LC50 - Fish [1]	114 mg/l (APHA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	98 mg/l (96 h, Gammarus sp., Flow-through system, Fresh water, Experimental value)
ErC50 algae	> 91.5 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	1 – 3 (96 h, Brachydanio rerio, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-13.2 – -2.62 (Calculated, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.419 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.2. Persistence and degradability

COMBAT

Persistence and degradability — Contains readily biodegradable component(s).

Trisodium nitrilotriacetate (5064-31-3)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	0.625 g O_2/g substance

12.3. Bioaccumulative potential

COMBAT

Bioaccumulative potential — No bioaccumulation data available.

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

Trisodium nitrilotriacetate (5064-31-3)	
Bioaccumulative potential	Not bioaccumulative.
BCF - Fish [1]	1 – 3 (96 h, Brachydanio rerio, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-13.2 – -2.62 (Calculated, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.419 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.4. Mobility in soil

COMBAT

Ecology - soil — Highly mobile in soil.

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

Trisodium nitrilotriacetate (5064-31-3)	
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.419 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-13.2 – -2.62 (Calculated, 25 °C)

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents and or container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available or puncture and dispose of in a sanitary landfill.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No. (TDG) : UN1719

14.2. UN proper shipping name

Proper Shipping Name (TDG) : CAUSTIC ALKALI LIQUID, N.O.S.

Transport document description (TDG) : UN1719 CAUSTIC ALKALI LIQUID, N.O.S., 8, II

14.3. Transport hazard class(es)

TDG

Transport hazard class(es) (TDG) : 8

Hazard labels (TDG) : 8

14.4. Packing group

Packing group (TDG) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

TDG

UN-No. (TDG) : UN1719

TDG Special Provisions : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks).
(2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:
(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;
(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;
(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;
(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or
(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.
(3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment:
(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or
(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.

Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 1 L
Emergency Response Guide (ERG) Number : 154

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)

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)

SECTION 16: Other information

Issue date : 12/13/2023

Full text of H-statements:	
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H351	Suspected of causing cancer.

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.