

PROGRESS

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Hazard statements (GHS CA)	: H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage.
Precautionary statements (GHS CA)	: P234 - Keep only in original container. P260 - Do not breathe fume, mist, vapours, or spray. P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face 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. 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
Sodium hydroxide	Sodium hydroxide	CAS-No.: 1310-73-2	5 - 10

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Name	Chemical name / Synonyms	Product identifier	% w/w
Sodium hypochlorite	Bleach	CAS-No.: 7681-52-9	1 – 10
Caprylic acid	Octanoic acid	CAS-No.: 124-07-2	1 – 5
N,N-dimethyldodecylamine-N-oxide	N,N-Dimethyl-1-dodecanamine, N-oxide	CAS-No.: 1643-20-5	0.1 – 1

**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 : Cracking of the skin. Inflammation/damage of the eye tissue.
- Expected Symptoms/Effects, Acute and Delayed : Corrosion of the eye tissue. 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

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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 : Chemical goggles or face shield with safety glasses. Protective clothing (EN 14605 or EN 13034). Standard EN 374 - Protective gloves against chemicals.
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 : Ventilate area. Evacuate unnecessary personnel. Cover spill with non combustible material, e.g.: sand or earth. 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.
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. 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.

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 dry, cool, well-ventilated area.

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Incompatible products : Strong acids.

Incompatible materials : Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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

Personal protective equipment:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Materials for protective clothing:
Nitrile rubber/PVC
Hand protection:
Protective gloves against chemicals (EN 374)
Eye protection:
Chemical goggles or face shield
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

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Appearance	: Pale yellow liquid.
Colour	: colourless to yellow
Odour	: Pungent
Odour threshold	: No data available
pH	: 12 - 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 - 1.2
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	: 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

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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

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LD50 oral rat	46832 mg/kg
LD50 dermal rat	17871 mg/kg
ATE CA (oral)	46832 mg/kg bodyweight
ATE CA (Dermal)	17871 mg/kg bodyweight
Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CA (Dermal)	1350 mg/kg bodyweight
Caprylic acid (124-07-2)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg Source: IUCLID
N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
LD50 oral rat	1064 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
ATE CA (oral)	1064 mg/kg bodyweight
Sodium hypochlorite (7681-52-9)	
LD50 oral rat	8800 mg/kg Source: ECHA
LD50 dermal rabbit	> 20000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:
LC50 Inhalation - Rat (Vapours)	> 10.5 mg/l
ATE CA (oral)	8800 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.

Serious eye damage/irritation : Causes serious eye damage.

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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	: Not classified

N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
NOAEL (oral, rat, 90 days)	40 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:

Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eyes contact. Ingestion.
Expected Symptoms/Effects, Acute and Delayed	: Corrosion of the eye tissue. 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	: Cracking of the skin. Inflammation/damage of the eye tissue.

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

PROGRESS	
Partition coefficient n-octanol/water (Log Kow)	No data available
Caprylic acid (124-07-2)	
LC50 - Fish [1]	22 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 20 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	43.73 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

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Caprylic acid (124-07-2)	
EC50 72h - Algae [2]	23.28 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
BCF - Fish [1]	234 – 288 (Equivalent or similar to OECD 305, 28 day(s), Danio rerio, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.05 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.46 (log Koc, SRC PCKOCWIN v2.0, QSAR)
N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
LC50 - Fish [1]	134 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value)
LC50 - Fish [2]	31.8 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	3.9 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Crustacea [2]	3.1 mg/l Test organisms (species): Daphnia magna
ErC50 algae	0.081 mg/l Source: NITE
NOEC (chronic)	0.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
Partition coefficient n-octanol/water (Log Pow)	< 2.7 (Calculated)
Sodium hypochlorite (7681-52-9)	
LC50 - Fish [1]	0.033 – 0.097 mg/l Source: International Uniform Chemical Information Database
EC50 - Crustacea [1]	141 µg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	35 µg/l Test organisms (species): Ceriodaphnia dubia
EC50 72h - Algae [1]	0.0365 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

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Sodium hypochlorite (7681-52-9)	
EC50 72h - Algae [2]	0.0183 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

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Persistence and degradability

Contains readily biodegradable component(s). Biodegradability in soil: not applicable.

Caprylic acid (124-07-2)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.27 g O ₂ /g substance
N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
Persistence and degradability	Readily biodegradable in water.
Sodium hypochlorite (7681-52-9)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

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Bioaccumulative potential

No test data available.

Partition coefficient n-octanol/water (Log Kow)

No data available

Caprylic acid (124-07-2)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF - Fish [1]	234 - 288 (Equivalent or similar to OECD 305, 28 day(s), Danio rerio, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.05 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.46 (log Koc, SRC PCKOCWIN v2.0, QSAR)
N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	< 2.7 (Calculated)

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Sodium hypochlorite (7681-52-9)	
Bioaccumulative potential	Does not contain bioaccumulative component(s).

12.4. Mobility in soil

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Ecology - soil : Contains component(s) with potential for mobility in the soil.

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

Caprylic acid (124-07-2)	
Surface tension	33.7 mN/m (23 °C, 0.6 g/l, EU Method A.5: Surface tension)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.46 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.05 (Experimental value)

N,N-dimethyldodecylamine-N-oxide (1643-20-5)	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Pow)	< 2.7 (Calculated)

Sodium hypochlorite (7681-52-9)	
Surface tension	No data available in the literature
Ecology - soil	Contains component(s) with potential for mobility in the soil. May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste treatment methods : Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.
- Product/Packaging disposal recommendations : Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.
- Ecology - waste materials : Avoid release to the environment.

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SECTION 14: Transport information

14.1. UN number

UN-No. (TDG) : UN3266

14.2. UN proper shipping name

Proper Shipping Name (TDG) : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide, Sodium hypochlorite)

Transport document description (TDG) : UN3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide, Sodium hypochlorite), 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) : UN3266

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- 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)

Caprylic acid (124-07-2)

Listed on the Canadian DSL (Domestic Substances List)

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N,N-dimethyldodecylamine-N-oxide (1643-20-5)

Listed on the Canadian DSL (Domestic Substances List)

Sodium hypochlorite (7681-52-9)

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)

Caprylic acid (124-07-2)

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

N,N-dimethyldodecylamine-N-oxide (1643-20-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Sodium hypochlorite (7681-52-9)

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 : 12/28/2023

Full text of H-statements:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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.