SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name Sodium Percarbonate

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

Uses of the Substance / Mixture

- Bleaching agents
- Cleaning agent
- Oxidizing agents

1.3 Details of the supplier of the safety data sheet

Company

Naturgenix 2819 Southwest BLVD Kansas City, MO 64108

816-561-5377

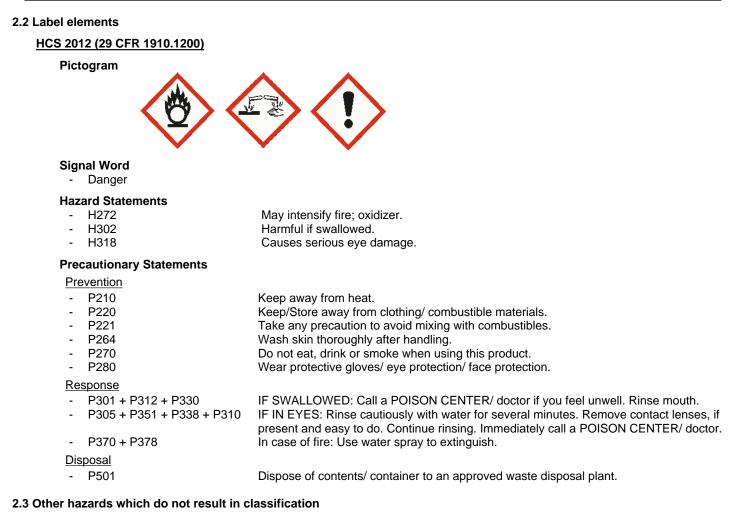
SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Oxidizing solids, Category 3 Acute toxicity, Category 4 Serious eye damage, Category 1 H272: May intensify fire; oxidizer. H302: Harmful if swallowed. H318: Causes serious eye damage.



- H401: Toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Hazardous Ingredients and Impurities

| Chemical name | Identification number CAS-No. | Concentration [%] |
|---|----------------------------------|-------------------|
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | 15630-89-4 | >= 97 - <= 99 |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

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SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation

- Move to fresh air.
- If symptoms persist, call a physician.

In case of skin contact

- Wash off with soap and water.
- If symptoms persist, call a physician.

In case of eye contact

- Call a physician or poison control center immediately.
- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).

In case of ingestion

- Rinse mouth with water.
- Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Effects

- May cause nose, throat, and lung irritation.

In case of skin contact

Effects

- Prolonged skin contact may cause skin irritation.

In case of eye contact

Symptoms

- Redness
- Lachrymation
- Swelling of tissue

Effects

- Corrosive
- May cause irreversible eye damage.

In case of ingestion

Symptoms

- Severe irritation
- Nausea
- Abdominal pain
- Vomiting
- Diarrhea

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- Immediate medical attention is required.
- If accidentally swallowed obtain immediate medical attention.
- Oxygen or artificial respiration if needed.

SECTION 5: Firefighting measures

Flash point

Not applicable

- Autoignition temperature No data available
- Flammability / Explosive limit No data available

5.1 Extinguishing media

Suitable extinguishing media

- Water
- Water spray

Unsuitable extinguishing media

- None.

5.2 Special hazards arising from the substance or mixture

- Oxidizing
- Oxygen released in thermal decomposition may support combustion
- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Cool containers/tanks with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

- Keep away from incompatible products

Advice for emergency responders

- Sweep up to prevent slipping hazard.

6.2 Environmental precautions

- Should not be released into the environment.
- Limited quantity
- Flush into sewer with plenty of water.
- Large quantities:
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Do not mix waste streams during collection.
- Avoid dust formation.
- Treat recovered material as described in the section "Disposal considerations".
- All receiving equipment should be clean, vented, dry, labeled and made of material that is compatible with the product.
- Never return spills in original containers for re-use.

6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Avoid dust formation.
- Ensure adequate ventilation.
- Keep away from heat and sources of ignition.
- Use only clean and dry utensils.
- Never return unused material to storage receptacle.
- Keep away from water.
- Keep away from incompatible products

Hygiene measures

- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Handle in accordance with good industrial hygiene and safety practice for diagnostics.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Keep only in the original container.
- Keep at temperature not exceeding 40°C
- Store in a receptacle equipped with a vent.
- Keep in a well-ventilated place.
- Keep in a dry place.
- Keep in properly labeled containers.
- Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
- Keep away from incompatible products

Packaging material

Suitable material

- Stainless steel
- Plastic materials.
- Paper + PE coating.

Unsuitable material

- No data available

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

| Components | Value type | Value | Basis |
|---|------------|---------|----------------------------------|
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | TWA | 5 mg/m3 | Solvay Acceptable Exposure Limit |

8.2 Exposure controls

Control measures

Engineering measures

- Avoid dust formation.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Hand protection

- Wear suitable gloves.
- Non-recommended materials: Leather, cotton
- Suitable material
- PVC
- Neoprene
- Natural Rubber

Eye protection

- Dust proof goggles obligatory.

Skin and body protection

- Wear suitable protective clothing.

Hygiene measures

- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Handle in accordance with good industrial hygiene and safety practice for diagnostics.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

| <u>Appearance</u> | <u>Form</u> : | powder |
|-------------------|----------------------------|--------|
| | Physical state: | solid |
| <u>Odor</u> | <u>Color</u> : odorless | white |

| Odor Threshold | No data available |
|---|--|
| Molecular weight | 314.06 g/mol |
| рН | 10.4 - 10.6 (10.1 g/l) |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling range | <u>Boiling point/boiling range:</u> Not applicable |
| Flash point | Not applicable |
| Evaporation rate (Butylacetate = 1) | No data available |
| Flammability (solid, gas) | The product is not flammable. |
| Flammability / Explosive limit | Explosiveness: Not explosive |
| Autoignition temperature | No data available |
| Vapor pressure | Not applicable |
| Vapor density | Not applicable |
| Density | Bulk density: 950 - 1,200 kg/m3 |
| Relative density | No data available |
| <u>Solubility</u> | <u>Water solubility</u> : 150 g/l (68 °F (20 °C)) |
| Partition coefficient: n-octanol/water | Not applicable |
| Decomposition temperature | Self-Accelerating decomposition temperature (SADT) |
| Decomposition temperature | > 131 °F (> 55 °C) 50 kg |
| Viscosity | Viscosity, dynamic : Not applicable |
| Explosive properties | No data available |
| Oxidizing properties | The substance or mixture is classified as oxidizing with the category 3. Oxidizing |

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- -
- Decomposes when moist. Decomposes on heating. Potential for exothermic hazard -

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.
- Fire or intense heat may cause violent rupture of packages.

10.4 Conditions to avoid

- Exposure to moisture.
- To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

- Water
- Acids
- Bases
- Heavy metal salts
- Reducing agents
- Organic materials
- Flammable materials
- Combustible material

10.6 Hazardous decomposition products

- Oxygen

Acute toxicity

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| Acute oral toxicity Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | LD50 : 1,034 mg/kg - Rat , male and female This product is classified as acute toxicity category 4 Unpublished reports |
|---|--|
| Acute inhalation toxicity | No data available |
| Acute dermal toxicity Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | LD50 : > 2,000 mg/kg - Rabbit , male and female Not classified as hazardous for acute dermal toxicity according to GHS. No mortality observed at this dose. Unpublished reports |
| Acute toxicity (other routes of administration) | No data available |
| Skin corrosion/irritation | |
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Rabbit Not classified as irritating to skin Unpublished reports |

| Serious eye damage/eye irritation | |
|--|---|
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Rabbit Risk of serious damage to eyes. Method: OECD Test Guideline 405 Unpublished reports |
| Respiratory or skin sensitization | |
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Buehler Test - Guinea pig Does not cause skin sensitization. Unpublished reports |
| Mutagenicity | |
| Genotoxicity in vitro Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | By analogy In vitro tests showed mutagenic effects Published data |
| Genotoxicity in vivo Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | By analogy Product is not considered to be genotoxic Published data |
| Carcinogenicity | No data available |
| is product does not contain any ingredient de | signated as probable or suspected human c |

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP IARC OSHA

Toxicity for reproduction and development

Toxicity to reproduction / fertility

Carbonic acid sodium salt (1:2), compd. By analogy, The product is not considered to affect fertility., Published data with hydrogen peroxide (H2O2) (2:3)

Developmental Toxicity/Teratogenicity

Carbonic acid sodium salt (1:2), By analogy, The product is not considered to be embryotoxic / fetotoxic., compd. with hydrogen peroxide (H2O2) Published data (2:3)

<u>STOT</u>

STOT-single exposure

Carbonic acid sodium salt (1:2), compd. The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

STOT-repeated exposure

| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | By analogy, The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. |
|--|--|
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | By analogy |

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| 90-day - Rat |
|---------------------------------------|
| NOAEL: 100 ppm |
| Test substance: Hydrogen peroxide |
| Target Organs: Gastrointestinal tract |
| Method: OECD Test Guideline 408 |
| drinking water |
| Unpublished reports |

Experience with human exposure

No data available

Aspiration toxicity

Carbonic acid sodium salt (1:2), compd. Not applicable, Expert judgment, No aspiration toxicity classification with hydrogen peroxide (H2O2) (2:3)

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

| Acute toxicity to fish Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | LC50 - 96 h : 70.7 mg/l - Pimephales promelas (fathead minnow) semi-static test Analytical monitoring: yes Unpublished reports Harmful to fish. |
|---|---|
| Acute toxicity to daphnia and other aq | uatic invertebrates |
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | EC50 - 48 h : 4.9 mg/l - Daphnia magna (Water flea) semi-static test Analytical monitoring: yes Unpublished reports Toxic to aquatic invertebrates. |
| Toxicity to aquatic plants Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | ErC50 - 72 h : 2.62 mg/l - Skeletonema costatum (marine diatom) static test Analytical monitoring: yes Test substance: Hydrogen peroxide By analogy Unpublished reports Toxic to algae. |
| Toxicity to microorganisms | No data available |
| Chronic toxicity to fish | No data available |
| Chronic toxicity to daphnia and other aquatic invertebrates | No data available |

12.2 Persistence and degradability

Abiotic degradation

Stability in water

Carbonic acid sodium salt (1:2), compd. Product dissociates rapidly to corresponding ions on contact with water.

| with hydrogen peroxide (H2O2) (2:3) | Hydrogen peroxide The product can be degraded by abiotic (e.g. chemical or photolytic) processes. Expert judgment |
|---|---|
| Photodegradation Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) Physical- and photo-chemical elimination | Not applicable No data available |
| Biodegradation | No data available |
| Degradability assessment Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) 12.3 Bioaccumulative potential | The product is not considered to be rapidly degradable in the environment |
| Partition coefficient: n-octanol/water | No data available |
| Bioconcentration factor (BCF) Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Expert judgment Accumulation in aquatic organisms is unlikely. Not potentially bioaccumulable |
| 12.4 Mobility in soil | |
| Adsorption potential (Koc) Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Expert judgment Not applicable |
| Known distribution to environmental o Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | |
| 12.5 Results of PBT and vPvB assessment | |
| Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | This substance is not considered to be persistent, bioaccumulating, and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |
| 12.6 Other adverse effects | |
| Ecotoxicity assessment | |
| Short-term (acute) aquatic hazard Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) Long-term (chronic) aquatic hazard Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H2O2) (2:3) | Toxic to aquatic life. Not classified due to data which are conclusive although insufficient for classification. |
| | |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Dilute with plenty of water.

- Dispose of wastes in an approved waste disposal facility.
- Can be landfilled, when in compliance with local regulations.
- In accordance with local and national regulations.

Advice on cleaning and disposal of packaging

- Clean container with water.
- Empty containers should be taken to an approved waste handling site for recycling or disposal.
- Uncleaned empty packaging
- Dispose of as unused product.
- In accordance with local and national regulations.

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

<u>DOT</u>

| 14.1 UN number | UN 3378 |
|--|--------------------------------|
| 14.2 Proper shipping name | SODIUM CARBONATE PEROXYHYDRATE |
| 14.3 Transport hazard class Label(s) | 5.1 5.1 |
| 14.4 Packing group Packing group ERG No | III 140 |
| 14.5 Environmental hazards Marine pollutant | NO |

TDG

| 14.1 UN number | UN 3378 | | |
|--|--------------------------------|--|--|
| 14.2 Proper shipping name | SODIUM CARBONATE PEROXYHYDRATE | | |
| 14.3 Transport hazard class Label(s) | 5.1 5.1 | | |
| 14.4 Packing group Packing group ERG No | III 140 | | |
| 14.5 Environmental hazards Marine pollutant | NO | | |
| NOM | | | |

NOM

14.1 UN number

| 14.2 Proper shipping name | SODIUM CARBONATE PEROXYHYDRATE |
|--|--------------------------------|
| 14.3 Transport hazard class Label(s) | 5.1 5.1 |
| 14.4 Packing group Packing group ERG No | III 140 |
| 14.5 Environmental hazards Marine pollutant | NO |
| IMDG | |
| 14.1 UN number | UN 3378 |
| 14.2 Proper shipping name | SODIUM CARBONATE PEROXYHYDRATE |
| 14.3 Transport hazard class Label(s) | 5.1 5.1 |
| 14.4 Packing group Packing group | III |
| 14.5 Environmental hazards Marine pollutant | NO |
| 14.6 Special precautions for user EmS | F-A , S-Q |
| | |

For personal protection see section 8.

14.7 Transport in bulk vessels according to IMO instruments No data available

<u>IATA</u>

| 14.1 UN number | UN 3378 |
|--|-------------------------------------|
| 14.2 Proper shipping name | SODIUM CARBONATE PEROXYHYDRATE |
| 14.3 Transport hazard class Label(s): | 5.1 5.1 |
| 14.4 Packing group Packing group | III |
| Packing instruction (cargo aircraft) Max net qty / pkg Packing instruction (passenger aircraft) Max net qty / pkg | 563 100.00 kg 559 25.00 kg |
| 14.5 Environmental hazards | NO |

14.6 Special precautions for user

For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

| Inventory Information | Status | | |
|--|---|--|--|
| United States TSCA Inventory | - All substances listed as active on the TSCA inventory | | |
| Canadian Domestic Substances List (DSL) | - Listed on Inventory | | |
| Australia Inventory of Chemical Substances (AICS) | - Listed on Inventory | | |
| Japan. CSCL - Inventory of Existing and New Chemical Substances | - Listed on Inventory | | |
| Korea. Korean Existing Chemicals Inventory (KECI) | - Listed on Inventory | | |
| China. Inventory of Existing Chemical Substances in China (IECSC) | - Listed on Inventory | | |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | - Listed on Inventory | | |
| Taiwan Chemical Substance Inventory (TCSI) | - Listed on Inventory | | |
| New Zealand. Inventory of Chemical Substances | All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand. | | |
| EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH) | - When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions | | |

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of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

15.2 Federal Regulations

US. EPA EPCRA SARA Title III

SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)

| Oxidizer (liquid, solid or gas) | | Yes |
|--|--|-----|
| Acute toxicity (any route of exposure) | | Yes |
| Serious eye damage or eye irritation | | Yes |

The categories not mentioned are not relevant for the product.

Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355) This material does not contain any components with a section 302 EHS TPQ.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355) This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

Further information

- Distribute new edition to clients
- NSF permits use of this product as an oxidant at a maximum use rate of 33 mg/L.
- NSF permits use of this product as an algicide at a maximum use rate of 33 mg/L.
- Update
- See section 1

Date Prepared: 08/26/2020

Key or legend to abbreviations and acronyms used in the safety data sheet

- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program

| - | IARC: International Agency for Research on Cancer NIOSH: National Institute for Occupational Safety and Health | | | | |
|-----|---|---|--|--|--|
| - | ADR: | European Agreement on International Carriage of Dangerous Goods by Road. | | | |
| - | ADN: | European Agreement on the International Carriage of Dangerous Goods by Inland | | | |
| Wat | erways. | | | | |
| - | RID: | European Agreement concerning the International Carriage of Dangerous Goods by Rail. | | | |
| - | IATA: | International Air Transport Association. | | | |
| - | ICAO-TI: | Technical Specification for Safe Transport of Dangerous Goods by Air. | | | |
| - | IMDG: | International Maritime Dangerous Goods. | | | |
| - | TWA: | Time weighted average | | | |
| - | ATE: | Estimated value of acute toxicity | | | |
| - | EC: | European Community number | | | |
| - | CAS: | Chemical Abstracts Service. | | | |
| - | LD50: | Substance that causes 50% (half) death in the test animals group (Median Fatal Dose). | | | |
| - | LC50: | Substance concentration causing 50% (half) death in the test animals group. | | | |
| - | EC50: | Effective Concentration of the substance causing the maximum of 50%. | | | |
| - | PBT: | Persistent, Bioaccumulative and Toxic substance. | | | |
| - | vPvB: | Very Persistent and Very Bioaccumulative. | | | |
| - | SEA: | Classification, labeling, packaging regulation | | | |
| - | DNEL: | Derived No Effect Level | | | |
| - | PNEC: | Predicted No Effect Concentration | | | |
| - | BHOT: | Specific Target Organ Toxicity | | | |
| | | | | | |

Not all acronyms listed above are referenced in this SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.