BICI Chemicals
1200 N Peoria
Tulsa, OK 74106
1-918-625-8811

Green Solutions for Your Brown Problems

Safety Data Sheet

1 PRODUCT IDENTIFICATION

Product Name	**Oxy-Add**
Synonyms	**sodium carbonate peroxyhydrate**
Material Use	**sewage treatment additive**

Emergency: 1-800-535-5053

2 HAZARD SUMMARY

GHS Class	***oxidizer***	***acute oral***	***eye corrosive***
(Category)	***(2)***	***(4)***	***(1)***
Signal Words	***DANGER***	***WARNING***	***DANGER***
Hazard Statements	*oxidizer, may intensify fire (H272)*	*harmful if swallowed (H302)*	*causes serious eye damage (H318)*

GHS Precautionary Statements for Labelling

P210	**Keep away from heat.**
P221	**Take any precautions to avoid mixing with combustibles.**
P370, P378	**In case of fire use foam or water to extinguish.**
P262, P264	**Do not get in eyes. Wash thoroughly after handling.**
P270	**Do not eat, drink or smoke when using this product.**
P280	**Wear eye protection & protective gloves of nitrile.**
P305, P351, P338	**If in eyes, rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.**

3 COMPONENTS

	%	TLV ppm / mg/m^3	LD_{50} (mg/kg) ORAL	LD_{50} (mg/kg) SKIN	LC_{50} (ppm) INHALATION
Sodium Carbonate Peroxyhydrate	100%	not listed	1035	>2000	not known

4 FIRST AID

SKIN: Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until laundered.

EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.

INHALATION: Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly.

INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below the hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Corrosive substance: first aid must be applied immediately! *Inadvertent inhalation of vomited material may seriously damage the lungs. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.*

PLEASE ENSURE THAT THIS MSDS IS GIVEN TO, AND EXPLAINED TO PEOPLE USING THIS PRODUCT.

EMERGENCY INFORMATION: Call CHEMTREC (800) 424-9300

5 FLAMMABILITY & FIREFIGHTING

Flash Point	will not burn – ***may initiate ignition & accelerate burning of combustibles***
Autoignition Temperature	will not burn
Flammable Limits	will not burn
Combustion Products	oxygen – ***accelerates burning***
Firefighting Precautions	as for substances involved in fire; *water spray dilutes hydrogen peroxide formed, decreasing oxidising effect on the fire*; foam is effective; firefighters must wear SCBA
Static Charge Accumulation	cannot accumulate a static charge

6 ACCIDENTAL RELEASE MEASURES

Leak Precaution	not applicable – *solid material*
Handling Spill	sweep, shovel & store in closed containers for disposal

7 STORAGE & HANDLING

Keep dry. Store away from combustible materials. Never cut, drill, weld or grind on or near this container, whether empty or full. *Always replace drum, pail or IBC cap prior to moving the container!*

Avoid generating or breathing product dust. If dust forms in use install adequate ventilation to control airborne titre to clear workplace air. Avoid contact with skin & wash work clothes frequently. An eye bath should be available near the workplace.

8 EXPOSURE CONTROL & PERSONAL PROTECTION

ACGIH TLV	not listed	ACGIH STEL	not listed
OSHA PEL	not listed	OSHA STEL	not listed
Ventilation	mechanical ventilation may be required to control airborne titre to regulated limits		
Hands	nitrile gloves recommended – *other types may also protect; confirm suitability with supplier*		
Eyes	safety glasses with side shields – *always protect the eyes*		
Clothing	no special protective clothing required		

9 PHYSICAL CHARACTERISTICS

NOTE: *for Flash Point, Autoignition Temperature & Flammable Limits see Part 5.*

Odor & Appearance	white granular solid, “earthy” odor
Odor Threshold	not known
Vapor Pressure	not known – *does not form vapor*
Evaporation Rate (*Butyl Acetate = 1*)	not known – *not volatile*
Vapor Density (air = 1)	not known – *not volatile*
Boiling Point	not known
Melting Point	not known
Decomposition Temperature	not known
Specific Gravity	2.0-2.2 (20/20°C)
Bulk Density	approx. 1.2 – *due to air entrainment*
Water Solubility	140 grams/litre (20°C / 68°F) – *decomposes rapidly in water to sodium carbonate & oxygen*
Viscosity	not applicable – *solid material*
pH	approximately – 10.5 (*1% solution*)
Molecular Weight	168grams/mole

10 REACTIVITY

Dangerously Reactive With	strong reducing agents
Also Reactive With	water
Chemical Stability	stable; will not polymerize
Decomposes in Presence of	water
Decomposition Products	oxygen
Mechanical Impact	not sensitive

11 TOXICITY

i. *EFFECTS OF ACUTE EXPOSURE*

Skin Contact	dry skin – little to no effect; may irritate moist (*sweaty*) skin
Skin Absorption	slight; no toxic effects by this route
Eye Contact	severely irritating, may cause corrosive damage
Inhalation	dust may irritate respiratory system
Ingestion	likely to be corrosive to mouth, throat & stomach; nausea, vomiting may occur
LD_{50} (oral)	1035, 2000, 2400mg/kg (rat), 2200mg/kg (mouse)
LD_{50} (skin)	>2000mg/kg (rabbit),
LC_{50} (inhalation)	not known

ii. *EFFECTS OF CHRONIC EXPOSURE*

General	no chronic effect known
Sensitising	not a sensitiser
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect on humans or animals
Mutagen	not known to be a mutagen or teratogen in humans or animals
Synergistic With	not known

12 ENVIRONMENTAL INFORMATION

Bioaccumulation	decomposes rapidly to sodium carbonate which does not accumulate
Biodegradation	inorganic substance cannot biodegrade
Abiotic Degradation	decomposes to sodium carbonate which is a very stable compound – *no further degradation*
Mobility in soil, water	water soluble; moves readily through soil and the water column
Aquatic Toxicity	
LC_{50} (Fish, 96 hr)	70mg/litre (Pimephales promelas)
LC_{50} (Crustacea, 48hr)	4.1mg/litre (Daphnia pulex)
EC_{50} (Algæ, 72hr)	*no reliable data available*
LC_{50} (Bacteria)	*no reliable data available*

13 DISPOSAL / CONTAINERS

Waste Disposal ***do not flush to sewer without generous dilution;*** *OR moisten, allowing oxygen to escape – local regulations may permit disposal of the residue (sodium carbonate) in sanitary landfill*

Containers **Drums** should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.
Pails must be vented and thoroughly dried prior to crushing and recycling.
IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5 years). Steel containers must be inspected, pressure tested & recertified every 5 years.

Warning: never cut, drill, weld or grind on or near this container, even if empty.

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14 TRANSPORTATION CLASSIFICATION

USA 49 CFR & Canada TDG

Product Identification Number	**UN – 3378**
Shipping Name	**sodium carbonate peroxyhydrate**
Classification	**Class 5.1; Packing Group III**
ALSO shipped as	
Product Identification Number	**UN – 1479**
Shipping Name	**oxidizing solid N.O.S. (sodium percarbonate)**
Classification	**Class 5.1; Packing Group III**
Marine Pollution	***not a marine pollutant***
Reportable Quantity (RQ)	**none**

15 REGULATIONS

Canada DSL	**on inventory**
U.S.A. TSCA	**on inventory**
Europe EINECS	**on inventory**

U.S.A. Regulations:

FIFRA Requirements: Section 3(c)(5) of FIFRA provides for the registration of new active ingredients if it is determined that (A) its composition is such as to warrant the proposed claims for it; (B) its labeling and other materials required to be submitted comply with the requirements of FIFRA; (C) it will perform its intended function without unreasonable adverse effects on the environment; and (D) when used in accordance with widespread and commonly recognized practice it will not generally cause unreasonable adverse effects on the environment. To satisfy criteria "A"above, Sodium Carbonate Peroxyhydrate is not expected to cause unreasonable adverse effects when used according to label instructions. Criteria "B" is satisfied by the current label and by the data presented in this document. It is believed that this new pesticidal active ingredient will not cause any unreasonable adverse effects, and is likely to provide protection as claimed, satisfying Criteria "C." Criteria "D"is satisfied in that the toxicological properties of this product are less toxic than other conventional pesticide products currently in use for this target pest. Therefore, Sodium Carbonate Peroxyhydrate is eligible for registration.

16 OTHER INFORMATION

Date of Preparation	**June 2015**
Date of Revision	**-**

Prepared for BICI Chemicals, by Peter Bursztyn

Resources: ***CHEMINFO*** *(Canadian Center for Occupational Health & Safety),* ***Hazardous Substances Data Bank*** *(US National Library of Science),* ***EChA Dossiers*** *(European Union),* ***ESIS European Chemical Substances Information System*** *(European Union),* ***OSHA Database*** *(US Dept. of Labor), and* ***RTECS Database*** *Registry of Toxic Effects of Chemical Substances.*

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