Conforms to HazCom 2012/United States

SAFETY DATA SHEET

PAK 27 Algaecide

Section 1. Identification

GHS product identifier: PAK 27 algaecide

Other means of identification: Not available.

EPA Registration No.: 68660-9-67690

Relevant identified uses of the substance or mixture Algaecide

Supplier's details : SePRO Corporation
11550 North Meridian Street
Suite 600
Carmel, IN 46032 U.S.A.
Tel: 317-580-8282
Toll free: 1-800-419-7779
Fax: 317-580-8290
Monday - Friday, 8am to 5pm E.S.T.
www.sepro.com

Emergency telephone number (with hours of operation) : **INFOTRAC - 24-hour service 1-800-535-5053**

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

Section 2. Hazards identification

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

Classification of the substance or mixture

Acute toxicity,	4	Harmful if swallowed.
Serious eye damage	1	Causes serious eye damage.

Label elements

Pictogram

Signal Word	DANGER
Hazards	Harmful if swallowed. Causes serious eye damage.
Precautionary Statements	
Prevention	Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection
Response	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Other hazards which do not result in classification	Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Section 3. Composition/information on ingredients

Substance	Not applicable, this product is a mixture.
Mixture	Chemical nature; Multi constituent substance; Stabilized product

Hazardous Ingredients and Impurities

Chemical Name	Identification Number CAS-NO	Concentration (%)
Sodium carbonate peroxyhydrate	15630-89-4	> = 85
Carbonic acid sodium salt	497-19-8	< = 13
Sodium silicate SiO2/Na2O	1344-09-8	< = 1.5

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

Section 4. First aid measures

Description of first-aid measures	
In case of inhalation	Move to fresh air. If symptoms persist, call a physician.
In case of skin contact	Remove and wash contaminated clothing before re-use. Wash off with plenty of 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 If victim is conscious: If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.
If victim is unconscious: Artificial respiration and/or oxygen may be necessary.

Rinse mouth with water. Do NOT induce vomiting. If accidentally swallowed obtain immediate medical attention. Oxygen or artificial respiration if needed.

Most important symptoms and effects, both acute and delayed

Effects In case of inhalation May cause nose, throat, and lung irritation.

Effects In case of skin contact Prolonged skin contact may cause skin irritation.

Effects In case of eye contact Symptoms**:** Redness; Lachrymation; Swelling of tissue
Effects: Severe eye irritation; Risk of serious damage to eyes.

Effects In case of ingestion Symptoms: Severe irritation; Nausea; Abdominal pain; Vomiting; Diarrhea

Indication of any immediate medical attention and special treatment needed No data available

Section 5. Fire-fighting measures

Flash point Not applicable

Autoignition temperature No data available

Flammability / Explosive limit No data available

Suitable extinguishing media Water; Water spray

Unsuitable extinguishing media None.

Special hazards arising from the substance or mixture

Specific hazards during fire fighting

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.

Hazardous combustion products: Oxygen

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.

Further information Keep product and empty container away from heat and sources of ignition.

Section 6. Accidental release measures

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.

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.

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.

Reference to other sections No data available

Section 7. Handling and storage

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 Use only in an area equipped with a safety shower. Eye wash bottle with pure water Handle in accordance with good industrial hygiene and safety practice for diagnostics.

Conditions for safe storage, including any incompatibilities

Technical measures/ Storage conditions Keep in a dry place. Keep in a cool, well-ventilated place. Keep only in the original container. Keep away from direct sunlight. Store in a receptacle equipped with a vent. Keep away from heat. The container must be used exclusively for the product. Keep in container fitted with safety valve or vent.

Avoid dust formation. Refer to protective measures listed in sections 7 and 8. In industrial installations, apply the rules for the prevention of major accidents (consult an expert). Keep away from heat/sparks/open flames/hot surfaces. No smoking. To avoid thermal decomposition, do not overheat.

Keep away from: Incompatible products

Packaging material

Suitable material

Stainless steel
Polyethylene
Paper + PE coating.

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.

Control parameters

Components with workplace occupational exposure limits

Ingredients	Value Type	Value	Basis
Sodium carbonate peroxyhydrate	TWA	5 mg/m3	Solvay Acceptable Exposure Limit
Carbonic acid sodium salt (1:2)	TWA	10 mg/m3	Solvay Acceptable Exposure Limit

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

Respiratory protection Use only respiratory protection that conforms to international/ national standards. Use NIOSH approved respiratory protection. Respirator with a dust filter

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

Eye protection Chemical resistant goggles must be worn.

Skin and body protection Protective suit

Hygiene measures Use only in an area equipped with a safety shower. Eye wash bottle with pure water 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.

Information on basic physical and chemical properties

Form:	powder
Physical state:	solid
Color:	white
Odor	odorless
Odor Threshold	no data available
pH	10.4 - 10.6 (10.1 g/l)
Boiling point/boiling range	Not applicable
Flash point	Not applicable
Evaporation rate (Butylacetate = 1)	no data available
Flammability (solid, gas)	The product is not flammable.
Flammability / Explosive limit	Not explosive
Autoignition temperature	no data available
Vapor pressure	Not applicable
Vapor density	Not applicable
Bulk Density	900 - 1,200 kg/m3
Water Solubility	150 g/l (68 °F (20 °C))
n-octanol/water Partition coefficient:	Not applicable
Thermal decomposition	Self-Accelerating decomposition temperature (SADT) > 131 °F (> 55 °C) 50 kg
Viscosity, Dynamic	Not applicable
Explosive properties	no data available
Oxidizing properties	Oxidizing
Henry's Constant	Air
Molecular weight	314.06 g/mol

Section 10. Stability and reactivity

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

Chemical stability	Potential for exothermic hazard. Stable under recommended storage conditions.
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.
Conditions to avoid	Exposure to moisture. To avoid thermal decomposition, do not overheat.
Incompatible materials	Water; Acids; Bases; Heavy metal salts; Reducing agents; Organic materials; Flammable materials; Combustible material
Hazardous decomposition products	Oxygen

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Acute oral toxicity	LD50 : 1,034 mg/kg - Rat
Acute inhalation toxicity	LC0 - 1 h > 4,580 mg/m3 - Rat
Acute dermal toxicity	LD 10 > 2,000 mg/kg - Rabbit
Acute toxicity (other routes of administration)	no data available

Skin corrosion/irritation

Rabbit
slight irritation

Serious eye damage/eye irritation

Rabbit
Risk of serious damage to eyes.

Respiratory or skin sensitization no data available

Mutagenicity

Genotoxicity in vitro

Carbonic acid sodium salt (1:2)

By analogy
Ames test with metabolic activation
Product is not considered to be genotoxic
Published data

Strain: Escherichia coli
without metabolic activation

negative
Product is not considered to be genotoxic
Published data

Genotoxicity in vivo no data available

Carcinogenicity no data available

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

Toxicity for reproduction and development

Toxicity to reproduction / fertility
Sodium silicate SiO2/Na2O — Repeated exposure - Rat
NOEL parent: > 159 mg/kg

Developmental Toxicity/Teratogenicity
Carbonic acid sodium salt (1:2) — Mouse , female
Application Route: Oral
NOAEL teratogenicity: >= 580 mg/kg
NOAEL maternal: >= 580 mg/kg
Method: according to a standardized method
no embryotoxic or teratogenic effects have been observed
Unpublished reports

STOT

STOT-single exposure
Carbonic acid sodium salt (1:2) — The substance or mixture is not classified as specific target organ toxicant, single exposure.
internal evaluation

Sodium silicate SiO2/Na2O — Routes of exposure: Inhalation
The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT-repeated exposure
Carbonic acid sodium salt (1:2) — The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
internal evaluation

Aspiration toxicity no data available
Further information Harmful if swallowed.
Risk of serious damage to eyes.
Irritating to respiratory system and skin.

Section 12. Ecological information

Toxicity

Aquatic Compartment
Acute toxicity to fish — LC50 : 71 mg/l - Pimephales promelas (fathead minnow)
NOEC - 96 h : 7.4 mg/l - Pimephales promelas (fathead minnow)

Acute toxicity to daphnia and other aquatic invertebrates. — EC50 : 4.9 mg/l - Daphnia pulex (Water flea)
NOEC - 48 h : 2 mg/l - Daphnia pulex (Water flea)

Toxicity to aquatic plants

Sodium silicate SiO2/Na2O	EC50 - 72 h : 345.4 mg/l - Algae : Desmodesmus subspicatus (Scenedesmus subspicatus) EbC50 - 72 h : 207 mg/l - Algae : Desmodesmus subspicatus (Scenedesmus subspicatus)

Persistence and degradability

Abiotic degradation

Stability in water	Medium, Water, Soil, Hydrolyzis
Photodegradation	Not applicable

Biodegradation

Biodegradability	The methods for determining biodegradability are not applicable to inorganic substances.

Degradability assessment

Carbonic acid sodium salt (1:2)	The product is not considered to be rapidly degradable in the environment

Bioaccumulative potential

Bioconcentration factor (BCF)	Not applicable

Mobility in soil

Adsorption potential (Koc)	Air Not applicable Water considerable solubility and mobility Soil/sediments non-significant adsorption

Results of PBT and vPvB assessment

Carbonic acid sodium salt (1:2)	Not applicable, inorganic substance

Other adverse effects	no data available

Ecotoxicity assessment

Acute aquatic toxicity

Carbonic acid sodium salt (1:2)	Not harmful to aquatic life (LC/EC50 > 100 mg/L)

Chronic aquatic toxicity

Carbonic acid sodium salt (1:2)	Not classified due to data which are conclusive although insufficient for classification.

Remarks	Contains a(many) hazardous substance(s) for the environment. Under massive form, product is biologically inert and non-degradable. Ingestion of solids may cause harm to wildlife due to intestinal mechanical blockage or starvation from false feeling of satiation.

Section 13. Disposal considerations

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.

Waste Code

Environmental Protection Agency
Hazardous Waste – YES
RCRA Hazardous Waste (40 CFR 302)
D001 - Ignitable waste – (I)

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.

DOT

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

TDG

UN number	UN 3378
Proper shipping name	SODIUM CARBONATE PEROXYHYDRATE
Transport hazard class	5.1
Label(s)	5.1
Packing group	
Packing group	III
Environmental hazards	NO
Marine pollutant	

NOM

UN number	UN 3378
Proper shipping name	SODIUM CARBONATE PEROXYHYDRATE

Transport hazard class	5.1
Label(s)	5.1
Packing group	
Packing group	III
ERG No	140
Environmental hazards	NO
Marine pollutant	

IMDG

UN number	UN 3378
Proper shipping name	SODIUM CARBONATE PEROXYHYDRATE
Transport hazard class	5.1
Label(s)	5.1
Packing group	
Packing group	III
Environmental hazards	NO
Marine pollutant	
Special precautions for user	
EmS	F-A , S-Q
For personal protection see section 8.	

IATA

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

Notification status

Inventory Status	Status
United States TSCA Inventory - In compliance with the inventory	In compliance with the inventory
New Zealand. Inventory of Chemical Substances	In compliance with the inventory
Canadian Domestic Substances List (DSL)	In compliance with the inventory
Australia Inventory of Chemical Substances (AICS)	In compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	In compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	In compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	In compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	In compliance with the inventory

Federal Regulations

US EPA EPCRS SARA Title III

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

Fire Hazard	Yes
Reactivity Hazard	No
Sudden Release of Pressure Hazard	No
Acute Health Hazard	No
Chronic Health Hazard	No

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)
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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.

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

NFPA (National Fire Protection Association) - Classification

Health	2 moderate
Flammability	0 minimal
Instability or Reactivity	1 slight
Special Notices	OX Oxidizer

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	2 moderate
Flammability	0 minimal
Reactivity	1 slight
PPE	Determined by User; dependent on local conditions

Further information

Product evaluated under the US GHS format.

Date Prepared:	05/21/15
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

Notice to reader

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