

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Product name	Paramedic®
Product number	PAR-0150, PAR-0500
Brand	ReefX®
Substance name	Sodium percarbonate
EC no.	239-707-6
CAS no.	15630-89-4

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

For freshwater and marine aquarium use as an anti-parasite and algaecide treatment, and as a general water conditioner.

1.3 Details of the supplier of the safety data sheet

Name	Live Reef Ltd
Address	8-9 Mountbatten Road EX16 6SW Tiverton Devon UK
Telephone	+44 (0)800 8620270
email	info@livereef.uk

1.4 Emergency telephone number

Live Reef Distribution Ltd
+44 (0)800 8620270

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 (CLP)

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal word

Danger

Hazard statement(s)

H302

Harmful if swallowed

H318

Causes serious eye damage

H272

May intensify fire; oxidizer

Precautionary statement(s)

P305+P351+P338

P370+P378

P401

P280

P220

P210

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of fire: Use water to extinguish.

Store in a dry place at temperatures not exceeding 40 °C/104 °F.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep away from clothing and other combustible materials.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Substance name	Sodium percarbonate
EC no.	239-707-6
CAS no.	15630-89-4
Formula	Na ₂ CO ₃ 1.5H ₂ O ₂
Molecular weight	157.01
Other names / synonyms	Carbonic acid sodium salt (1:2), compd. with hydrogen peroxide (H ₂ O ₂) (2:3); Sodium carbonate peroxide; Disodium carbonate, compound with hydrogen peroxide (2:3); Sodium percarbonate

SECTION 4: First aid measures**4.1 Description of first aid measures**

Following inhalation	In case of prolonged exposure, risk of sore throat, nose bleeds and chronic bronchitis. At high concentrations- may cause cough. Slight nose and throat irritation. Go to a well-ventilated area- keep still and wrapped up. If necessary seek medical advice.
Following skin contact	In case of repeated contact, risk of dermatitis. Slight irritation. Rinse with water and soap. Remove contaminated clothing and shoes. Consult a doctor if irritation persists.
Following eye contact	Severe eye irritation. In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical advice.
Following ingestion	Bloating of stomach, nausea, vomiting and diarrhea. Severe irritation of the mouth, throat, esophagus and stomach. Rinse mouth with water. Drink water.

Do not induce vomiting.
Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

After inhalation of dust: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

After skin contact: Not irritating.

After eye contact: Inflammation/damage of the eye tissue. Corrosion of the eye tissue.

After ingestion: Nausea. Vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Water.

Do not use any other substances.

5.2 Special hazards arising from the substance or mixture

Not combustible. May decompose slowly if local heating up above 50 °C.

Formation of: Sodium carbonate and hydrogenium peroxide.

Can be released in case of fire: Carbon monoxide and carbon dioxide, NaOx.

5.3 Advice for firefighters

Wear self-contained breathing apparatus. Wear suitable protective clothing.

If safe to do so, remove product to a safe area.

Further information

Hazchem-Code: 1Y

Cool endangered containers with water jet spray. Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Avoid generation of dust. Do not breathe dust.

Provide adequate ventilation. Avoid contact with skin and eyes.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Take up dust-free and set down dust-free. Place in appropriate containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid heat- contamination with acids and reduction agents.

Do not spread dust.
 Use adequate dust extraction systems.
 Avoid any contact with water or humidity.
 Avoid contact with wet or hot air.
 Keep the product away from acids and bases to avoid decomposition.
 Provide emergency on-site eyewash and showers.
 Do not return to original container- risk of decomposition.
 Clean and dry process pipes and equipment before using the product.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, clean and fresh area (temperature below 35°C), protected from heat, sunlight and humidity.
 Avoid contamination with incompatible materials or decomposition catalysts.
 Due to decomposition, overpressure may occur in closed containers.
 Store in cold, dry, clean, well-ventilated areas away from combustible or incompatible materials and sources of heat.
 Tanks, containers or receptacles should be equipped with an adequate ventilation system.
 Containers should be used for the product only.
 L304 or L316 stainless steel.
 High-density polyethylene.
 Polypropylene.
 PVC
 Glass.
 Consult if any other material.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. SODIUM PERCARBONATE (CAS: 15630-89-4 EC: 239-707-6)

Parameter	PNEC
Route of exposure	Marine water
Value	0.035 mg/L
Parameter	DNEL
Route of exposure	Dermal
Value	6.4 mg/cm ²
DNEL target	Consumer - acute effects local
Parameter	Limit val - 8 hr
Route of exposure	Inhalation
Value	10 mg/m ³
Basis / monitoring / notes	Exposure limits not established for the product. As a guideline this value may be used.
Parameter	PNEC
Route of exposure	Microorgs in sewage tmt
Value	16.24 mg/L
Parameter	PNEC
Route of exposure	Fresh water
Value	0.035 mg/L

8.2 Exposure controls

Appropriate engineering controls

If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protection equipment

Pictograms



Eye and face protection

Safety goggles.

Skin protection

PVC gloves.

Body protection

Wear suitable protective clothing.

Respiratory protection

Normal use: none.

If user operations generate dust, fume or mist: wear mask or respirator with filter type P2.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Solid; white spherical crystals
Odour	Odorless
Odour threshold	No data available
pH	10.4-10.6 ; 140 g/l ; 20 °C
Melting point / freezing point	Decomposes at high temperatures
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable (inorganic)
Evaporation rate	Not applicable
Flammability (solid, gas)	Non combustible
Upper/lower flammability limits	Not applicable
Upper/lower explosive limits	Not applicable
Vapour pressure	Negligible
Vapour density	Not applicable
Relative density	2.01 - 2.16 at 20 °C
Solubilit(ies)	Soluble in hot water. Partially soluble in cold water. Very slightly soluble in methanol. Insoluble in diethyl ether, n-octanol.
Partition coefficient: n-octanol/water	150 g/L at 20 °C
Auto-ignition temperature	Not applicable
Decomposition temperature	>60 °C
Viscosity	Not applicable
Explosive properties	Not classified
Oxidising properties	May intensify fire; oxidiser.

SECTION 10: Stability and reactivity

10.1 Reactivity

Promotes combustion. Substance has basic reaction.

10.2 Chemical stability

Stable at room temperature. Unstable on exposure to heat. Unstable on exposure to moisture.

10.3 Possibility of hazardous reactions

Metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohol or terpenes) may produce self-accelerated thermal decomposition.

10.4 Conditions to avoid

Moisture. Avoid raising dust. Keep away from naked flames/heat.

10.5 Incompatible materials

Avoid acids, alkalis and reducing agents.

Avoid decomposition catalysts (the majority of metals and their salts).

Avoid combustible, flammable and organic materials.

10.6 Hazardous decomposition products

May decompose slowly if local heating up above 50 °C.

Formation of: Sodium carbonate and hydrogenium peroxide.

Can be released in case of fire: Carbon monoxide and carbon dioxide, NaOx.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Ingesting big quantities may cause vomiting and diarrhoea.

Acute oral toxicity: LD50,-, Rat = 1034 mg/kg/bw.

Skin corrosion/irritation

Acute dermal toxicity: LD50, 24h, Rabbit = >2000mg/kg/bw.

Serious eye damage/irritation

Severity: irritating (rabbit).

Respiratory or skin sensitization

Inhaled sodium percarbonate will dissociate into sodium carbonate and hydrogen peroxide in the respiratory tract.

Hydrogen Peroxide acute inhalation toxicity: LC50, 4h, Rat = > 170 mg/m³.

Sodium carbonate acute inhalation toxicity: LC50, , Rat = 1200 mg/m³.

Germ cell mutagenicity

The product contains a peroxygen group. In vitro- it gives a positive result in mutagenicity tests. In the presence of metabolic systems, there is no mutagenic effect.

Carcinogenicity

No data available.

Not recognised as carcinogenic by Research Agencies: (IARC, NTP, OSHA, ACGIH).

Reproductive toxicity

Not recognised as reprotoxic by Research Agencies.

No data available.

STOT-single exposure

Not available.

STOT-repeated exposure

Not available.

Aspiration hazard

Not available.

SECTION 12: Ecological information

12.1 Toxicity

The product is toxic for aquatic organisms. Nevertheless, the risk to the environment is limited due to the product properties:

- No bioaccumulative product,
- Abiotic degradation,
- Toxicity of degradation products is low.

In the aquatic environment, Sodium Percarbonate rapidly degrades leading to the formation of Sodium Carbonate and Hydrogen Peroxide and the latter also decomposes into oxygen and water.

Acute toxicity to fish: LC50, 96h, Pimephales promelas = 70.7 mg/l

Acute toxicity to aquatic invertebrates: EC50, 48h, Daphnia pulex = 4.9 mg/l

12.2 Persistence and degradability

Biodegradability does not apply to inorganic compounds.

12.3 Bioaccumulative potential

When sodium percarbonate is dissolved in water, it dissociates to sodium carbonate and hydrogen peroxide.

The sodium ion and carbonate ion will not accumulate in living tissues (OECD, 2003). Hydrogen peroxide is reactive and a short-lived polar substance and no bioaccumulation is expected (European Commission, 2003b, OECD, 1999).

12.4 Mobility in soil

For solid sodium percarbonate no transport to the air is expected because of the negligible vapour pressure.

When sodium percarbonate is dissolved in water, it dissociates to sodium carbonate and hydrogen peroxide rather easily. The high water solubility and low vapour pressure indicate that sodium carbonate will be found predominantly in the aquatic environment. Volatilisation of hydrogen peroxide from surface waters and moist soil is expected to be very low, while it is expected to be highly mobile in soil. It can be concluded that the aquatic compartment is the main compartment for sodium carbonate and hydrogen peroxide.

12.5 Results of PBT and vPvB assessment

The criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006 do not apply to inorganic substances.

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal of the product

Waste material code (Directive 2008/98/EC, decision 2000/0532/EC).

16 09 03* (peroxides, for example hydrogen peroxide). Depending on branch of industry and production process, also other EURAL codes may be applicable.

Hazardous waste according to Directive 2008/98/EC.

Remove waste in accordance with local and/or national regulations. Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances)

Disposal of contaminated packaging

Dispose of waste according to applicable legislation. Handle contaminated packaging in the same way as the substance itself.

Cleaned containers may be recycled.

SECTION 14: Transport information

14.1 UN Number	UN3378
14.2 UN Proper Shipping Name	Sodium carbonate peroxyhydrate
14.3 Transport hazard class(es)	5.1
14.4 Packing group	III

14.6 Special precautions for user

Road (ADR):

Limited quantities: Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass).

Rail (RID):

Environmentally hazardous substance mark: No.

Limited quantities: Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass).

Inland waterways (ADN):

Limited quantities: Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass).

Sea (IMDG/IMSBC):

Marine pollutant: No.

Environmentally hazardous substance mark: No.

Special provisions: 967.

Limited quantities: Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass).

Air (ICAO-IT/IATA-DGR):

Passenger limited maximum quantity: Y508 - 2.5 kg.

Passenger maximum quantity: 508 - Maximum quantity: 5 kg.

Cargo maximum quantity per packaging: 508 - 512 - Maximum quantity: 25 kg.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations - EC member states

Volatile organic compounds (VOC): 0% by weight.

National regulations - Germany

Storage class: 5.1 A = Oxidising substances.

Water Hazard Class: 1 = mild water pollutant (WGK catalog number 1364).

Observe employment restrictions concerning young persons.

Observe employment restrictions for expectant or nursing mothers.

National regulations - USA

TSCA Inventory: listed.

TSCA HPVC: not listed.

15.2 Chemical Safety Assessment

Yes

HMIS Rating

Sodium percarbonate	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	2
PERSONAL PROTECTION	X

NFPA Rating



SECTION 16: Other information

Further information/disclaimer

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.