

OXYBIOSAN

Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 3/31/2023 Revision date: 3/31/2023

Version: 1.0

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

1.1. Product identifier

Product form	: Substance
Trade name	: OXYBIOSAN
EC-No.	: 239-707-6
CAS-No.	: 15630-89-4
Product code	: OXYBIOSAN
Product group	: Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Specialised oxidation and disinfection applications for mining and industrial markets

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ImproChem(Pty) Ltd T/A AECI Water
1 Wharhirst Road
Umbogintwini - South Africa
T +27(31) 949 8200

1.4. Emergency telephone number

Emergency number : 0800 SPILLS or 0800 774557

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Oxidising Solids, Category 3	H272
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Serious eye damage/eye irritation, Category 1	H318

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. May intensify fire; oxidiser. Harmful in contact with skin. Harmful if swallowed. Causes serious eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H272 - May intensify fire; oxidiser.
H302+H312 - Harmful if swallowed or in contact with skin
H318 - Causes serious eye damage.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep away from clothing and other combustible materials.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338+P310 - 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.
P312 - Call a POISON CENTRE or doctor if you feel unwell.

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Labelling according to Directive 67/548/EEC or 1999/45/EC

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Sodium Carbonate Sesquiperhydrate	(CAS-No.) 15630-89-4 (EC-No.) 239-707-6	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Remove contaminated clothing and shoes. Contaminated clothing and shoes should be discarded or washed and decontaminated before reuse. . If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Wash immediately with lots of water (15 minutes)/shower. Wash skin with plenty of water. Take off contaminated clothing.
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	: Call a poison center or a doctor if you feel unwell. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Dry chemical powder. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: May intensify fire; oxidiser.
Explosion hazard	: Could decompose explosively when heated or involved in a fire.
Reactivity in case of fire	: May accelerate the burning of other combustible materials. Could ignite combustibles (wood, paper, oil, clothing, etc.). Do not get water inside containers.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂). Sodium oxide, Oxygen.

5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area. Eliminate all ignition sources if safe to do so. Move containers from fire area if it can be done without personal risk.
Firefighting instructions	: Evacuate area. Eliminate all ignition sources if safe to do so. Cool laterally with water containers exposed to flames, even after the fire is extinguished. Prevent fire fighting water from entering the environment.
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

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Eliminate every possible source of ignition. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not handle until all safety precautions have been read and understood. Isolate from fire, if possible, without unnecessary risk. Ventilate area. Use special care to avoid static electric charges. Do not get water inside containers.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing.
Measures in case of dust release	: In case of dust production: consider evacuation. In case of dust production: no naked flames or sparks.

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/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Keep away from combustible material. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Cover spill with non combustible material, e.g.: sand/earth.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak without risks if possible. Cover spill with non combustible material, e.g.: sand, earth, vermiculite.
Methods for cleaning up	: Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Avoid dust formation. Keep away from combustible materials. Keep away from ignition sources.
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Avoid dust formation. Ensure adequate ventilation, especially in confined areas. Facilities: shower, eye shower.
Storage conditions	: Store in a well-ventilated place. Keep cool. Protect from moisture.
Incompatible materials	: Strong acids. Strong bases. Strong oxidizing agents. Organic materials. Hydrocarbons. combustible materials. Reducing agent.
Storage temperature	: < 60 °C
Heat and ignition sources	: Keep away from heat and direct sunlight. Keep away from ignition sources.
Storage area	: Keep container in a well-ventilated place. Keep only in the original container. Keep out of direct sunlight. Store away from heat. Store in a cool area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Gloves, shoulder length. Protective clothing. Protective goggles. Safety Boots. Synthetic apron. In case of insufficient ventilation, wear suitable respiratory equipment.

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Hand protection	: Protective gloves
Eye protection	: Protective goggles. Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granules. free flowing.
Colour	: White.
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
pH solution	: 3 (10 – 11) %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 56 °C
Flammability	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Density	: 900 – 1200 g/l
Solubility	: Water: 140 g/l @ 20 C
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: May intensify fire; oxidiser.
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. May cause or intensify fire; oxidiser.

10.2. Chemical stability

May cause fire or explosion; strong oxidiser.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Organic materials. Strong acids. Strong bases. Strong oxidizing agents. hydrocarbons. Combustible materials.

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10.6. Hazardous decomposition products

Spontaneous polymerisation.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed or in contact with skin. Harmful in contact with skin or if inhaled.

Sodium Carbonate Sesquiperhydrate (15630-89-4)	
LD50 oral rat	1034 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Sodium Carbonate Sesquiperhydrate (15630-89-4)	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Sodium Carbonate Sesquiperhydrate (15630-89-4)	
LC50 - Fish [1]	70.7 ml/l (Pimephales promelas)
EC50 - Crustacea [1]	4.9 mg/l (Daphnia pules)
EC50 72h - Algae [1]	70 mg/l (chlorella emersonii) 240 h

12.2. Persistence and degradability

Sodium Carbonate Sesquiperhydrate (15630-89-4)	
Persistence and degradability	Inherently biodegradable.

12.3. Bioaccumulative potential

Sodium Carbonate Sesquiperhydrate (15630-89-4)	
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 3378
UN-No. (IMDG) : 3378

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UN-No. (IATA) : 3378

14.2. UN proper shipping name

Proper Shipping Name (ADR) : SODIUM CARBONATE PEROXYHYDRATE
Proper Shipping Name (IMDG) : SODIUM CARBONATE PEROXYHYDRATE
Proper Shipping Name (IATA) : Sodium carbonate peroxyhydrate
Transport document description (ADR) : UN 3378 SODIUM CARBONATE PEROXYHYDRATE, 5.1, III, (E)
Transport document description (IMDG) : UN 3378 SODIUM CARBONATE PEROXYHYDRATE, 5.1, III
Transport document description (IATA) : UN 3378 Sodium carbonate peroxyhydrate, 5.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 5.1
Danger labels (ADR) : 5.1



IMDG

Transport hazard class(es) (IMDG) : 5.1
Danger labels (IMDG) : 5.1



IATA

Transport hazard class(es) (IATA) : 5.1
Danger labels (IATA) : 5.1



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

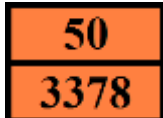
Classification code (ADR) : O2
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P002, IBC08, LP02, R001
Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10

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Portable tank and bulk container instructions (ADR)	: T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV
Tank special provisions (ADR)	: TU3
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Bulk (ADR)	: VC1, VC2, AP6, AP7
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV24
Hazard identification number (Kemler No.)	: 50
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 1Y

- Transport by sea

Special provisions (IMDG)	: 967
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002, LP02
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1, BK2, BK3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-Q
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW1, SW23, H1
Segregation (IMDG)	: SGG16, SG59
Properties and observations (IMDG)	: White crystals or powder. Soluble in water. Mixtures with combustible material are readily ignited. Decomposes in contact with water and acids, forming hydrogen peroxide. Risk of decomposition when exposed to continuous heat (exothermic decomposition $\geq 60^{\circ}\text{C}$). When involved in a fire or exposed to high temperatures, it may decompose yielding oxygen and steam. Irritating to eyes, skin and mucous membranes. Harmful if swallowed.

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y546
PCA limited quantity max net quantity (IATA)	: 10kg
PCA packing instructions (IATA)	: 559
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 563
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A803
ERG code (IATA)	: 5L

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Not listed on REACH Annex XVII

Not listed on the REACH Candidate List

Not listed on REACH Annex XIV (Authorisation List)

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15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.
Ox. Sol. 3	Oxidising Solids, Category 3

SDS ImproChem Test

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