SAFETY DATA SHEET

Revision date: 12-Aug-2024

Revision Number 3

Section 1: Identification

Product identifier

Product Name SODIUM PERCHLORATE MONOHYDRATE

Product Code(s) 000000050391

Other means of identification

UN number or ID number 1502

CAS No. 7791-07-3

Recommended use of the chemical and restrictions on use

Recommended use Mining chemical.

Uses advised against No information available.

Details of manufacturer or importer

Supplier
IXOM Operations Pty Ltd
ABN: 51 600 546 512
Level 8, 1 Nicholson Street
Melbourne 3000
Australia

Telephone Number: +61 3 9906 3000

Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

GHS Classification

Oxidizing solids	Category 1
Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2

Label elements
Flame over circle
Exclamation mark

Signal word
DANGER

Hazard statements
H271 - May cause fire or explosion; strong oxidizer
H302 - Harmful if swallowed
H319 - Causes serious eye irritation

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep/Store away from clothing/ combustible materials.
Take any precaution to avoid mixing with combustibles.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye/face protection.
Wear fire/flame resistant/retardant clothing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
Rinse mouth.
IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Precautionary Statements - Storage
No storage statements.
Precautionary Statements - Disposal
Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Other hazards which do not result in classification

Section 3: Composition and information on ingredients

Chemical name	CAS No.	Weight-%
Sodium perchlorate monohydrate	7791-07-3	100

Section 4: First aid measures

Description of first aid measures

General advice For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, (trained personnel should) give oxygen. If breathing is irregular or stopped, administer artificial respiration. Call a physician if symptoms occur.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash off immediately with plenty of water. (Call a physician if symptoms occur).

Ingestion Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms Irritation. May cause redness and tearing of the eyes.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: Firefighting measures

Suitable Extinguishing Media

Suitable extinguishing media Water spray.

Unsuitable extinguishing media Carbon dioxide (CO2). Dry chemical.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Promotes the combustion (oxidizer). Can cause fire and explosion when in contact with flammable substances. Any material contaminated with the product (e.g. clothes) ignites easily and burns vigorously - increased fire hazard. Thermal decomposition can lead to release of irritating gases and vapors.

Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Hazchem code 1Y

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin and eyes. Avoid breathing dust or spray mist. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Use personal protective equipment as required. Wash thoroughly after handling.

Other information Keep combustibles (wood, paper, oil, etc) away from spilled material.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Avoid generation of dust. Do not breathe dust. Do not eat, drink or smoke when using this product. Use personal protection equipment. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Store away from sources of heat or ignition.

Incompatible materials Ammonium nitrate. Sodium nitrate. Combustible material. Reducing agent. Finely powdered metals. Strong acids. Cyanides. Sulfur compounds. Phosphorus compounds.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for particulates:

Dusts not otherwise classified: 8hr TWA = 10 mg/m^3

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls

Engineering controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.

Eye/face protection	Goggles.
Skin and body protection	Overalls. Boots. Wear fire/flame resistant/retardant clothing.
Hand protection	Impervious gloves.
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	No information available.
Thermal hazards	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	No information available
Color	White
Odor	Odourless
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	6.0-8.0 (5% aq. sol. at 25°C)	None known
pH (as aqueous solution)	No data available	None known
Melting point / freezing point	130°C	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	2.02	None known
Water solubility	No data available	None known
Solubility(ies)	Soluble in water	None known
Partition coefficient	No data available	None known
Autoignition temperature	Not applicable	None known
Decomposition temperature	>482°C	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Section 10: Stability and reactivity

Reactivity

Reactivity Oxidizer. Hygroscopic: absorbs moisture or water from surrounding air.

Chemical stability

Stability Stable under recommended storage conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions Oxidizing agent. Supports combustion of other materials and increases intensity of a fire. Sodium perchlorate may form explosive mixtures with finely divided combustible materials, finely divided metals, and easily oxidisable materials.

Conditions to avoid

Conditions to avoid Heat. Contact with incompatible materials. Do not contaminate food or feed stuffs. Contact with foodstuffs. Avoid exposure to moisture.

Incompatible materials

Incompatible materials Ammonium nitrate. Sodium nitrate. Combustible material. Reducing agent. Finely powdered metals. Strong acids. Cyanides. Sulfur compounds. Phosphorus compounds.

Hazardous decomposition products

Hazardous decomposition products Chlorine. Chlorine oxides. Sodium oxides. Hydrogen chloride. Oxygen, which will support combustion.

Section 11: Toxicological information

Information on likely routes of exposure

Product Information No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation May cause irritation.

Eye contact Causes serious eye irritation.

Skin contact May cause irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms Irritation. May cause redness and tearing of the eyes.

Acute toxicity .

Numerical measures of toxicity - Product Information
No information available

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. (OSHA - Occupational Safety and Health Administration) (IARC - International Agency for Research on Cancer) (NTP - National Toxicology Program).
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity	Keep out of waterways.
Terrestrial ecotoxicity	There is no data for this product.

Persistence and degradability

Persistence and degradability	No information available.

Bioaccumulative potential

Bioaccumulation	There is no data for this product.

Mobility

Mobility	No information available.

Other adverse effects

Other adverse effects No information available.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Sodium perchlorate monohydrate	-	Endocrine disrupting properties.

Section 13: Disposal considerations

Waste treatment methods

Waste from residues/unused products Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

See section 8 for more information

Section 14: Transport information

ADG Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN number or ID number 1502
Proper shipping name SODIUM PERCHLORATE
Transport hazard class(es) 5.1
Packing group II
Hazchem code 1Y

IATA Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN number 1502
UN proper shipping name SODIUM PERCHLORATE
Transport hazard class(es) 5.1
Packing group II

IMDG Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN number 1502
UN proper shipping name SODIUM PERCHLORATE
Transport hazard class(es) 5.1
Packing group II
IMDG EMS Fire F-H
IMDG EMS Spill S-Q
Marine pollutant Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Section 15: Regulatory information

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

National regulations

Australia

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
No poisons schedule number allocated
Poison Schedule Number Not applicable

Australian Industrial Chemicals Introduction Scheme (AICIS)
Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Sodium perchlorate monohydrate - 7791-07-3	Present	-

Illicit Drug Precursors/Reagents
This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

International Inventories

AIIC	This material is listed on the Australian Inventory of Industrial Chemicals.
NZIoC	This material is listed on the New Zealand Inventory of Chemicals.
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.

Legend:
AIIC- Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Section 16: Other information

Supplier Safety Data Sheet 12/ 2023

Reason(s) For Issue: Reissue of an obsolete SDS

Prepared By This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and SDS Services).

Revision date: 12-Aug-2024

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

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

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
Australian Industrial Chemicals Introduction Scheme (AICIS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since IXOM Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their IXOM representative or IXOM Operations Pty Ltd at the contact details on page 1.

IXOM Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet