

OTTO CHEMIE PVT LTD

An ISO 9001 : 2015 & GMP Certified Company
101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate,
Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841
Email : info@ottokemi.com Web : www.ottokemi.com

Creation Date :- 11-05-2025

Revision Date :-24-07-2030

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Sodium perchlorate, monohydrate, GR 99%+
Product Code: S 2237
CAS No : 7791-07-3

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification

OTTO CHEMIE PVT LTD

101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,
Chinchpada, Vasai East, Waliv, Maharashtra 401208.

Email info@ottokemi.com

1.4. Emergency telephone number

Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Oxidizing solids, (Category 1)

Acute toxicity, (Category 4)

Eye irritation, (Category 2)

Specific target organ toxicity -
repeated exposure, (Category 2),
Thyroid

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Hazard Statements

H271

H302

H319

H373

Precautionary Statements

P210

P220

P260

P301 + P312

P305 + P351 + P338

P314

Supplemental Hazard

Statements

Reduced Labelling (<= 125 ml)

Pictogram

Signal Word

Hazard Statements

H271

Precautionary Statements

P210

H271: May cause fire or explosion; strong oxidizer.

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

Danger

May cause fire or explosion; strong oxidizer.

Harmful if swallowed.

Causes serious eye irritation.

May cause damage to organs (Thyroid) through prolonged or repeated exposure.

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

Keep away from clothing and other combustible materials.

Do not breathe dust.

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical advice/ attention if you feel unwell.

none

Danger

May cause fire or explosion; strong oxidizer.

Keep away from heat, hot surfaces, sparks, open flames and

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P220

Supplemental Hazard
Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

other ignition sources. No smoking.

Keep away from clothing and other combustible materials.
none

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : $\text{ClNaO}_4 \cdot \text{H}_2\text{O}$
Molecular weight : 140,46 g/mol
CAS-No. : 7791-07-3
EC-No. : 231-511-9

Component	Classification	Concentration
Sodium perchlorate monohydrate		
CAS-No. 7791-07-3 EC-No. 231-511-9	Ox. Sol. 1; Acute Tox. 4; Eye Irrit. 2; STOT RE 2; H271, H302, H319, H373	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas

Sodium oxides

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Has a fire-promoting effect due to release of oxygen.

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5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Separately or together with other oxidising substances only and away from sources of ignition and heat. Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with them.

strongly hygroscopic

Storage class

Storage class (TRGS 510): 5.1A: Strongly oxidizing hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

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Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state

crystalline

b) Color

white

c) Odor

odourless

d) Melting

Melting point: 471,8 °C

point/freezing point

e) Initial boiling point

No data available

and boiling range

f) Flammability (solid,

No data available

gas)

g) Upper/lower

No data available

flammability or

explosive limits

h) Flash point

Not applicable

i) Autoignition

No data available

temperature

j) Decomposition

No data available

temperature

k) pH

4,5 - 7,0 at 50 g/l at 25 °C

l) Viscosity

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

m) Water solubility

No data available

n) Partition coefficient:

Not applicable for inorganic substances

n-octanol/water

o) Vapor pressure

No data available

p) Density

2,52 g/cm³ at 50 °C

Relative density

No data available

q) Relative vapour

No data available

density

r) Particle

No data available

characteristics

s) Explosive properties

No data available

t) Oxidizing properties

The substance or mixture is classified as oxidizing with the

category 1.

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9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Light metals

Organic Substances

Metals

Alcohols

Fluorine

Halogenated hydrocarbon

semimetallic oxides

Polyvinylchloride

sulfur

acids

Violent reactions possible with:

Cyanides

Risk of explosion with:

ammonium compounds

Reducing agents

magnesium

Powdered metals

combustible substances

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

Iron, Mild steel

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 1.000 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia

and other aquatic

invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test NOEC - Pseudokirchneriella subcapitata (green algae) -

86,3 mg/l - 72 h

(OECD Test Guideline 201)

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12.2 Persistence and degradability
Not applicable for inorganic substances

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
No data available

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1502

14.2 UN proper shipping name
ADR/RID:

IMDG:
IATA:

14.3 Transport hazard class(es)
ADR/RID: 5.1

14.4 Packaging group
ADR/RID: II

14.5 Environmental hazards
ADR/RID: no

14.6 Special precautions for user

Tunnel restriction code

Further information

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

IMDG: 1502

IATA: 1502

SODIUM PERCHLORATE
SODIUM PERCHLORATE
Sodium perchlorate

IMDG: 5.1

IATA: 5.1

IMDG: II

IATA: II

IMDG Marine pollutant: no

IATA: no

: (E)

: No data available

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

: Sodium perchlorate monohydrate

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P8 OXIDIZING LIQUIDS AND SOLIDS

15.2 Chemical safety assessment

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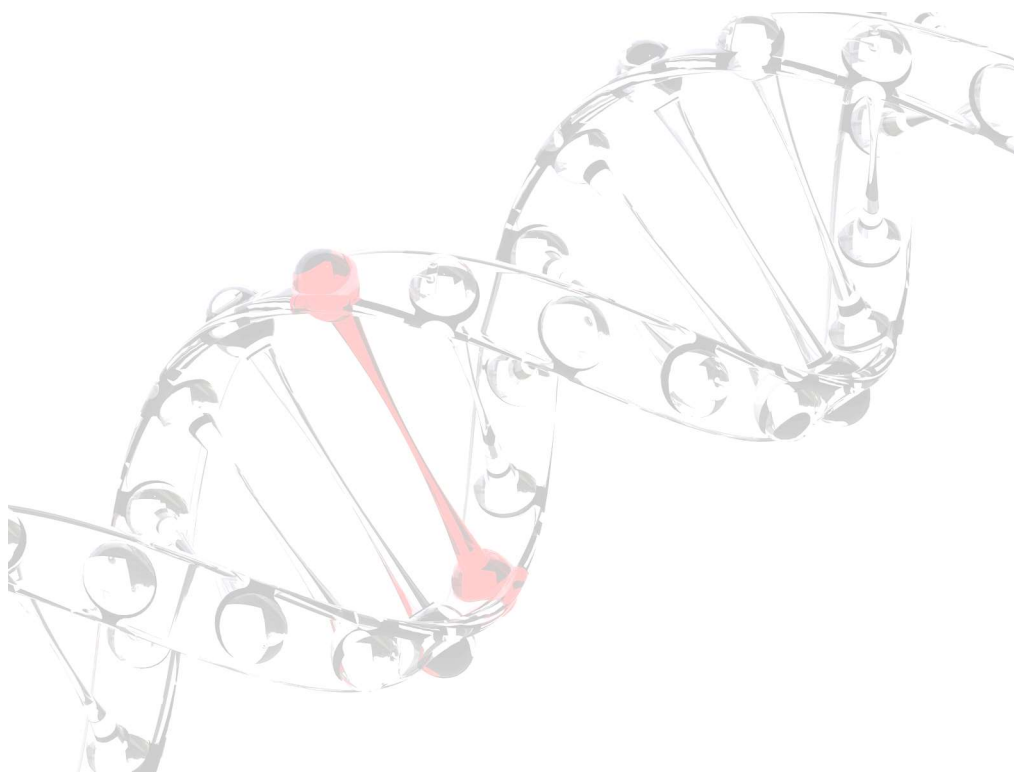
For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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