

1. IDENTIFICATION

Product Name Sodium metasilicate, pentahydrate

Other Names No Data Available

Uses Cleaning products; Detergents; Industrial use.

Chemical Family No Data Available
Chemical Formula Unspecified

Chemical Name Silicic acid (H2SiO3), disodium salt, pentahydrate

Product Description No Data Available

Contact Details of the Supplier of this Safety Data Sheet

 Organisation
 Location
 Telephone

 Redox Ltd
 2 Swettenham Road
 +61-2-97333000

Minto NSW 2566 Australia

Redox Ltd 11 Mayo Road +64-9-2506222

Wiri Auckland 2104 New Zealand

Redox Inc. 3960 Paramount Boulevard +1-424-675-3200

Suite 107

Lakewood CA 90712

USA

Redox Chemicals Sdn Bhd Level 2, No. 8, Jalan Sapir 33/7 +60-3-5614-2111

Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation Location Telephone Poisons Information Centre Westmead NSW 1800-251525 131126 Chemcall Australia 1800-127406 +64-4-9179888 +64-4-9179888 Chemcall Malaysia Chemcall New Zealand 0800-243622 +64-4-9179888 National Poisons Centre New Zealand 0800-764766

CHEMTREC USA & Canada 1-800-424-9300 CN723420

+1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 5



Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Corrosive to Metals - Category 1

Acute Toxicity (Oral) - Category 4
Skin Corrosion/Irritation - Category 1C
Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms





Signal Word Danger

Hazard Statements H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary Statements Prevention P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.P271 Use only outdoors or in a well-ventilated area.

Response **P303 + P361 + P353** IF ON SKIN (or hair): Take off im

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P310 Immediately call a POISON CENTER or doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

P390 Absorb spillage to prevent material-damage.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

Storage **P403 + P233** Store in a well-ventilated place. Keep container tightly closed.

P406 Store in corrosive resistant container with a resistant inner liner.

P405 Store locked up.

Disposal P501 Dispose of contents/container in accordance with local / regional / national /

international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods ClassificationDangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by

Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium metasilicate, pentahydrate	Unspecified	10213-79-3	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth thoroughly, then drink 1 or 2 glasses of water. Do NOT induce vomiting. Immediately call a

Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes.

Immediately call a Poison Centre or doctor/physician for advice. Can cause corneal burns!

Skin IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running

water/shower for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Wash contaminated

clothing and shoes before reuse.

*For minor skin contact, avoid spreading material on unaffected skin.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison

substance may be delayed. Show this safety data sheet (SDS) to the doctor in attendance.

Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with

a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Advice to Doctor Treat symptomatically. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to

*Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Medical Conditions Aggravated by No information available.

Exposure

5. FIRE FIGHTING MEASURES

General Measures Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out.

Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers.

Flammability Conditions Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic

fumes

Extinguishing Media If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Use

extinguishing agent suitable for type of surrounding fire.

Fire and Explosion Hazard Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.

Hazardous Products of

Combustion

Fire may produce irritating, corrosive and/or toxic gases.

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and may cause pollution.

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Wear liquid-tight chemical protective clothing - It may

provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire

situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Flash Point
No Data Available
Lower Explosion Limit
No Data Available
Upper Explosion Limit
No Data Available
Auto Ignition Temperature
No Data Available

Hazchem Code 2X

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure Ensure adequate ventilation - Ventilate enclosed areas. ELIMINATE all ignition sources (no smoking, flares, sparks or

flames in immediate area). Promptly clean up spills! Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid generating dust. Do not breathe dust and prevent contact with eyes, skin and

clothing.

Clean Up Procedures Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

*Do not get water inside containers.

Containment Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.

Decontamination After cleaning, flush away traces with water.

Environmental Precautionary

Measures

Spillages and decontamination runoff should be prevented from entering drains and waterways. Local authorities should

be advised if significant spillages cannot be contained.

Evacuation Criteria Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised personnel away.

Stay upwind and/or uphill.

Personal Precautionary Measures Wear positive pressure self-contained breathing apparatus (SCBA). Wear liquid-tight chemical protective clothing.

Structural firefighters' protective clothing is not

effective in spill situations where direct contact with the substance is possible.

7. HANDLING AND STORAGE

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation - Use only outdoors or in a well-ventilated place. Handle in accordance with good industrial hygiene and safety practice. Avoid generating dust. Do not breathe dusts or mists and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8).

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use. Protect

from moisture. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.

Container Keep only in the original container or corrosive resistant container with a resistant inner liner.

*Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General No specific exposure standards are available for this product.

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment - Respiratory protection: If determined by a risk assessment an inhalation risk exists, wear respiratory protection.

Recommended: Dust mask/respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tight sealing safety

goggles.

- Hand protection: Wear protective gloves. Recommended: Impervious gloves.

- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Boots;

Apron; Overalls.

Special Hazards Precaustions No information available.

Work Hygienic Practices Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off immediately all

contaminated clothing. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid
Appearance Granular

Odour Odourless or musty

Colour White

pH >12 - Approx. 14 (1% aqueous solution)

Vapour PressureNo Data AvailableRelative Vapour DensityNo Data AvailableBoiling PointNo Data Available

Melting Point 72 °C

Freezing Point No Data Available Solubility Soluble in water **Specific Gravity** No Data Available **Flash Point** No Data Available **Auto Ignition Temp** No Data Available **Evaporation Rate** No Data Available 0.85 - 1.05 kg/L **Bulk Density Corrosion Rate** No Data Available **Decomposition Temperature** No Data Available Density No Data Available **Specific Heat** No Data Available **Molecular Weight** No Data Available **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available **Vapour Temperature** No Data Available

Additional Characteristics Hygroscopic: absorbs moisture or water from surrounding air.

No Data Available

No Data Available

No Data Available

Potential for Dust Explosion No information available.

Fast or Intensely Burning No information available.

Characteristics

Flame Propagation or Burning

Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a

No information available.

Properties That May Initiate or Contribute to Fire Intensity

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic

Reactions That Release Gases or

Vapours

Fire

Viscosity

Volatile Percent

VOC Volume

Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Sodium oxides, oxides of Silicon.

Release of Invisible Flammable

Vapours and Gases

Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information Generates heat when mixed with acid. May react with ammonium salt solutions resulting in evolution of ammonia gas.

May be corrosive to metals. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead, and zinc.

Carbon monoxide gas may be produced on contact with reducing sugars.

Chemical StabilityStable under normal conditions.Conditions to AvoidAvoid moisture, direct sunlight.

Materials to Avoid Incompatible/reactive with acids, aluminium, brass, bronze, copper, lead, tin, zinc.

Hazardous Decomposition

Products

Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Sodium oxides, oxides of Silicon.

Contact with metals may evolve flammable hydrogen gas.

Hazardous Polymerisation Does not occur.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Harmful if swallowed; Causes severe gastrointestinal irritation with possible burns/perforation of the digestive tract. Corrosive to the mouth, throat, stomach; May cause nausea, vomiting, diarrhoea, abdominal pain,

ulceration, bleeding.

- Skin corrosion/irritation: Causes severe skin burns, redness, pain.

- Eye damage/irritation: Causes serious eye damage; Corrosive to eyes - May cause permanent injury, blindness.

- Respiratory/skin sensitisation: No information available.

- Germ cell mutagenicity: No information available.

- Carcinogenicity: No information available.

- Reproductive toxicity: No information available.

- STOT (single exposure): May cause respiratory irritation; May cause chemical burns to the respiratory tract.

- STOT (repeated exposure): No information available.

- Aspiration toxicity: No information available.

Acute

Ingestion Acute toxicity (Oral):

- LD50, Rat: 847 mg/kg

Carcinogen Category None

12. ECOLOGICAL INFORMATION

 Ecotoxicity
 No information available.

 Persistence/Degradability
 No information available.

 Mobility
 No information available.

Environmental Fate Prevent entry into drains and waterways.

Bioaccumulation Potential No information available.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name
DISODIUM TRIOXOSILICATE
8 Corrosive Substances
Subsidiary Risk(s)
No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

Land Transport (Malaysia)

ADR Code

 Proper Shipping Name
 DISODIUM TRIOXOSILICATE

 Class
 8 Corrosive Substances

 Subsidiary Risk(s)
 No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

 Proper Shipping Name
 DISODIUM TRIOXOSILICATE

 Class
 8 Corrosive Substances

 Subsidiary Risk(s)
 No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name DISODIUM TRIOXOSILICATE
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available

ERG 154 Substances - Toxic and/or Corrosive (Non-Combustible)

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name
DISODIUM TRIOXOSILICATE
8 Corrosive Substances
Subsidiary Risk(s)
No Data Available

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

EMS F-A, S-B Marine Pollutant No

Air Transport IATA DGR

Proper Shipping Name DISODIUM TRIOXOSILICATE
Class 8 Corrosive Substances

Subsidiary Risk(s) No Data Available

 UN Number
 3253

 Hazchem
 2X

 Pack Group
 III

Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods ClassificationDangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by

Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General InformationNo Data AvailablePoisons Schedule (Aust)Schedule 5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Additives Process Chemicals and Raw Materials Corrosive Group Standard 2020 HSR002491

*HSR003419 (Revoked)

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) 600-279-4

Europe (REACh) Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

16. OTHER INFORMATION

Related Product Codes SOMESE1000, SOMESE1000, SOMESE1001, SOMESE1002, SOMESE1003, SOMESE1004, SOMESE1005, SOMESE1006,

SOMESE1007, SOMESE1008, SOMESE1009, SOMESE1010, SOMESE1011, SOMESE1012, SOMESE1013, SOMESE1014, SOMESE1015, SOMESE1016, SOMESE1017, SOMESE1018, SOMESE1019, SOMESE1020, SOMESE1021, SOMESE1022, SOMESE1023, SOMESE1024, SOMESE1025, SOMESE1026, SOMESE1027, SOMESE1028, SOMESE1030, SOMESE1500, SOMESE1501, SOMESE1502, SOMESE1800, SOMESE1801, SOMESE1803, SOMESE1804, SOMESE1805, SOMESE1806, SOMESE1807, SOMESE1808, SOMESE1809, SOMESE1810, SOMESE2000, SOMESE2100, SOMESE2101, SOMESE2155, SOMESE2200, SOMESE2500, SOMESE3000, SOMESE3001, SOMESE3020, SOMESE3021, SOMESE3030, SOMESE3031, SOMESE3040, SOMESE3020, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE3040, SOMESE5001, SOMESE5001, SOMESE5002, SOMESE5003, SOMESE5011, SOMESE5002, SOMESE5003, SOMESE5011, SOMESE5002, SOMESE5003, SOMESE5000, SOMESE6000, SOMESE

SOMESE6800, SOMESE7000, SOMESE7200, SOMESE8000, SOMESE8200, SOMESE8300

Revision 5

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 Carbon Dioxide

COD Chemical Oxygen Demand **deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury inH2O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

Ib Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Heath and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight