LIVINGSTONE INTERNATIONAL PTY LTD
100% PROUDLY AUSTRALIAN OWNED • SINCE 1984 ABN: 66 052 001 144
Head Office: 106 - 116 Epsom Road, Rosebery NSW 2018 AUSTRALIA
Branches in Melbourne, Brisbane, Perth
Phone: 1300 780 078 • (02) 9313 6111 **Fax:** (02) 9313 6444
NEW Website: www.livingstone.com.au
Email: sales@livingstone.com.au

Issue Date: 09/10/2018
Revision Date: N/A
Supersedes Date: N/A
Version Number: 01

SAFETY DATA SHEET

Product Code: CSSL074-500G

SECTION 1 PRODUCT IDENTIFICATION

GHS Product Identifier SODIUM METAL

Recommended use of the chemical and restrictions on use

Tetraethyl and tetramethyl lead, titanium reduction, sodium peroxide, sodium hydride, polymerisation catalyst for synthetic rubber, analytical chemistry, to make sodium salts, reducing agent (ketones), laboratory reagent, coolant in nuclear reactors, electric power cable (encased in polyethylene), non-glare lighting for highways and heat transfer agent in solar powered electric generators

Other Names
Natrium
SODIUM METAL LR

SECTION 2 HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Substances and Mixtures which, in contact with water, emit flammable gases: Category 1
Skin Corrosion/Irritation: Category 1A

Signal Word(s) DANGER

Hazard Statement(s)
H260 In contact with water releases flammable gases which may ignite spontaneously.
H314 Causes severe skin burns and eye damage.
AUH014 Reacts violently with water

Pictogram (s)


Flame


Corrosion

Precautionary statement – Prevention
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232 Handle under inert gas. Protect from moisture.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response
Swallowed
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
Skin
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
Inhaled
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
Fire
P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

Precautionary statement – Storage
P402+P404 Store in a dry place. Store in a closed container.
P404 Store in a closed container.

Issue Date: 09/10/2018
Revision Date: N/A
Supersedes Date: N/A
Version Number: 01

SAFETY DATA SHEET

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Ingredients	CAS Number	Hazard Symbol	Risk Phrase
Sodium	7440-23-5	C	R14/15, R34

SECTION 4 FIRST AID MEASURES

Inhalation Remove victim to fresh air. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Keep warm and at rest. Seek urgent medical assistance.

Ingestion Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting. Seek immediate medical assistance.

Skin Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.

Eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.

First Aid Facilities Maintain eyewash fountain and safety shower in work area

Advice to Doctor Treat symptomatically based on judgement of doctor and individual reactions of the patient.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

SECTION 5 FIRE FIGHTING MEASURES

Hazards from Combustion Products Nature of decomposition products not known but can form flammable hydrogen in contact with air.

Specific Methods DO NOT USE WATER OR FOAM.
Small fire: Use dry chemical, soda ash, lime or sand.If safe to do so, move undamaged containers from fire area.
Large fire: Use DRY sand, dry chemical, soda ash or lime or withdraw and let fire burn. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.

Specific hazards arising from the chemical Will produce flammable substance on contact with water. Will ignite on contact with water or moist air and react vigorously or explosively on contact with water. Will be ignited by heat, sparks or flame and may re-ignite after fire is extinguished. Will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may create multiple fire or explosion hazard.

Hazchem Code 4W

Precautions in connection with Fire Wear SCBA. Structural firefighter's uniform will provide limited protection.

Issue Date: 09/10/2018
Revision Date: N/A
Supersedes Date: N/A
Version Number: 01

SAFETY DATA SHEET

Product Code: CSSL074-500G

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spills & Disposal	ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25m. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Water spray may be used to knock down vapours or divert vapour clouds. DO NOT GET WATER inside containers or in contact with substance. Small spill Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimize spreading or contact with rain. Large Spill SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL
Personal Precautions	Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling	Avoid substance contact and generation and inhalation of dust. Prevent all contact with water and with moist atmosphere.
Conditions for safe storage, including any incompatabilities	Keep containers securely sealed and protected against physical damage. Store away from sources of heat or ignition. Keep dry - reacts with water; may lead to drum rupture. Prevent all contact with water and with moist atmosphere. Keep away from direct sunlight Store at room temperature (15 - 25 °C). Store under nitrogen, mineral oil (paraffin oil or kerosene) - NEVER under halogenated hydrocarbons.
Storage Regulations	Refer Australian Standard AS/NZS 5026-2012 'The storage and handling of Class 4 dangerous goods'.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Other Exposure Information	A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. Open containers and use in a fume cupboard only.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	Safety glasses,goggles or faceshield as appropriate. The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Plastic or rubber gloves.
Personal Protective Equipment	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.

Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Wear suitable protective clothing to prevent skin contact.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Form	Liquid
Appearance	Soft, silver-white or grey solid. Lustrous when cut, becomes dull on exposure to air. Wax-like at room temperature, brittle at low temperatures.
Odour	Odourless.
Melting Point	97.6 °C
Boiling Point	892 °C
Solubility in Water	Decomposes water on contact, violently with evolution of hydrogen to form sodium hydroxide.
Solubility in Organic	Insoluble in kerosene, benzene and naphtha.
Solvents Specific Gravity	0.968 @ 25 °C
Vapour Pressure	1.2 hPa @ 400 °C
Flammability	Contact with moisture or water liberates flammable gases. HIGHLY FLAMMABLE. Keep away from heat, sparks or naked flames. Use flameproof equipment and fittings to prevent flammability risk. Electrically link and ground metal containers for transfer of the product to prevent accumulation of static electricity. Ensure adequate ventilation to prevent an explosive vapour-air mixture. Vapours will travel considerable distances to sources of ignition.
Molecular Weight	22.99
Other Information	Ductile and malleable. Excellent electrical conductivity and high heat-absorbing capacity. Soluble in ammonia and mercury. Burns with a yellow flame.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Oxidises rapidly in air. Flammable on contact with water. Forms carbonate/hydroxide layer on exposure to moist air.
Conditions to Avoid	Moisture.
Incompatible Materials	Oxidising agents.
Possibility of hazardous reactions	May react explosively with water; liberates flammable hydrogen gas. Reacts exothermally with halogens, acids and halogenated hydrocarbons. Reacts explosively or forms explosive compounds with ice; aqueous solutions of hydrogen chloride, hydrogen fluoride or sulfuric acid; chlorobenzene and phosphorous trichloride dispersed in toluene or xylene; 1-chlorobutane with a dispersion of sodium in light petroleum (if the temperature is too low); chloroform and methanol (if inadequately cooled); diazomethane; ethanol with sodium finely dispersed in hydrocarbons (unless air is excluded); fluorinated compounds; carbon tetrachloride; chloroform; dichloromethane; chloromethane; tetrachloroethane; hexachlorocyclopentadiene; perfluorohexyl iodide; iodomethane and iodine pentafluoride. A light explosion occurs with iodine; phosphorus tribromide (if drops of water are added); carbon monoxide; ammonium nitrate; sodium nitrate and phosphoryl chloride (on heating). Anhydrous hydrazine and sodium in ether react to form sodium hydrazide which explodes on contact in air, and molten sodium explodes with phosphorus tri- or pentachloride. The exothermic reaction of sodium wire and chlorobenzene in benzene under nitrogen is explosive if finely divided sodium is used, and the product of reduction of napthalene in liquid ammonia detonates as crystallisation begins. Mixtures of sodium and metal halides are sensitive to mechanical shock and other shock sensitive explosives are

Issue Date: 09/10/2018
Revision Date: N/A
Supersedes Date: N/A
Version Number: 01

SAFETY DATA SHEET

formed with liquid bromine, iodine bromide, iodine chloride; silver iodate or sodium iodate; phosphorus pentachloride; phosphorus tribromide; sulfur dichloride; boron tribromide; sulfur dibromide; sulfinyl fluoride; silcon tetrachloride; silicon tetrafluoride; inorganic oxygenated compounds (halide oxides or oxide sufides) or oxygen-rich organic compound (alkyl oxalates). Sodium may ignite in nitric acid (of density above 1.056); diethyl ether; fluorine gas, moist chlorine; sulfinyl chloride vapour at 300 °C; dinitrogen pentaoxide; 2,2,3,3-tetrafluoropropanol; or on admixture with fine lead oxide.

Sodium reacts vigorously with dimethylformamide (on heating); diselenium dichloride (on heating); sodium peroxide (at 500 °C) and, when molten, with coarse lead oxide. Molten tellurium reacts vigorously when poured on to solid sodium. Ground or heated mixtures of sodium and sulfur interact violently. Reacts violently in ether with bromobenzene and 1-bromobutane (above 30 °C). Reacts violently with mercury and vanalyl chloride (above 180 °C). Reacts incandescently with iodine heptafluoride; phosphorous pentaoxide; nitrosyl fluoride and nitryl fluoride. Reduces with incandescence bismuth (III) oxide, chromium trioxide, copper (II) oxide, tin (IV) oxide (on heating), mercury (I) oxide and molybdenum trioxide (molten sodium). Finely divided sodium luminesces in bromine vapour.

SECTION 11 TOXICOLOGICAL INFORMATION

Ingestion	May cause severe burns to the mouth and gastrointestinal tract, abdominal pain and vomiting.
Inhalation	May cause severe irritation, sore throat, coughing, shortness of breath and delayed lung edema. Fumes from burning sodium are highly irritating to the nose, throat and upper tract. May be harmful if inhaled. Extremely destructive to tissue.
Skin	Causes burns. May cause deep, penetrating ulcers of the skin.
Eye	Contact may cause severe burns or blindness. Fumes from burning sodium are highly irritating.
Carcinogenicity	Not listed in the IARC Monographs.
Mutagenicity	No evidence of mutagenic properties.

SECTION 12 ECOLOGICAL INFORMATION

Ecological Information	Product reacts with water.
Bioaccumulative Potential	Concentration in organisms is not to be expected.
Known Harmful Effects on the Environment	Harmful effect on aquatic organisms. Harmful effect due to pH shift (Sodium hydroxide solution could form).
Environmental Protection	Prevent this material entering waterways, drains and sewers. (Risk of explosion!)
Acute Toxicity - Daphnia	Daphnia magna (water flea) EC50: 1640 mg/l/48 h.

SECTION 13 DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

SECTION 14 TRANSPORT INFORMATION

Dangerous goods of Class 4.3 (Dangerous When Wet) are incompatible in a placard load with any of the following:
Class 1, Class 2.1, Class 5, Class 7, Class 8.

U.N. Number 1428

Head Office: 106 - 116 Epsom Road, Rosebery NSW 2018 AUSTRALIA
Branches in Melbourne, Brisbane, Perth
Phone: 1300 780 078 • (02) 9313 6111 Fax: (02) 9313 6444
NEW Website: www.livingstone.com.au
Email: sales@livingstone.com.au

Issue Date: 09/10/2018
Revision Date: N/A
Supersedes Date: N/A
Version Number: 01

SAFETY DATA SHEET

UN proper shipping name	SODIUM
Transport hazard class(es)	4.3
Hazchem Code	4W
Packaging Method	3.8.4.1
Packing Group	I
EPG Number	4N3
IERG Number	26

SECTION 15 REGULATORY INFORMATION

Poisons Schedule	Not Scheduled

SECTION 16 OTHER INFORMATION

Literature References

'Standard for the Uniform Scheduling of Medicines and Poisons No. 6', Commonwealth of Australia, February 2015.
Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.
Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
Safe Work Australia, 'Hazardous Substances Information System, 2005'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.

Empirical Formula & Structural Formula

Na

END OF SDS