MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material Name: Sodium cacodylate trihydrate.
Catalogue Number: C020, C0205
Other Names: Cacodylic Acid; Sodium Salt; Sodium Dimethylarsinate Trihydrate; Cacodylate Acid.
Recommended Use: Buffer for electron microscopy.

Supplier Name: **ProSciTech**
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification:
Hazardous according to the criteria for Classifying Hazardous Substances [NOHSC:1008].
Hazardous and/or Dangerous Nature:
HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Risk Phrases:
R23/25 Toxic by inhalation and if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases:
S1/2 Keep locked up and out of reach of children.
S20/21 When using do not eat, drink or smoke.
S28 After contact with skin, wash immediately with plenty of water.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Refer to Section 15 for Poisons Schedule.

SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

Pure Substance (Proportion 100%):
Chemical Identity: Sodium cacodylate.
Common Name(s): Cacodylic Acid; Sodium Salt; Sodium Dimethylarsinate Trihydrate; Cacodylate Acid.
CAS Number: 124-65-2

SECTION 4 - FIRST AID MEASURES

Ingestion: Induce vomiting. Call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Inhalation: For Small exposure: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

For Severe Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact: After contact with skin, was immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

For Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

First Aid Facilities: Eyebath/eyewash, Safety shower & general washroom facilities.
Medical Attention & Special Treatment:

If emesis is unsuccessful after two doses of Ipecac, consider gastric lavage. Monitor urine arsenic level. Alkalization of urine may help prevent disposition Of red cell breakdown products in renal tubular cells. If acute exposure is Significant, maintain high urine output and monitor volume status, preferably With central venous pressure line. Abdominal X-rays should be done routinely For all ingestions. Chelation therapy with BAL, followed by n-penicillamine is Recommended, but specific dosing guidelines are not clearly established.

Additional Information:

Not available.

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Hazards from Combustion Products:

These products are carbon oxides (CO, CO2). Some metallic oxides.

Precautions for Fire Fighters:

Wear proper protective equipment for the fire situation.

Hazchem Code: 2X

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Evacuate non-essential personnel from the area, ventilate and wear appropriate protective equipment (refer to Section 8) when cleaning up.

Containment & Clean up:

SMALL SPILL: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

LARGE SPILL: Use a shovel to put the material into a convenient waste disposal container.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling:

Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Precautions for Safe Storage:

Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety cabinet or room.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: (Sodium Cacodylate) Arsenic Compounds:
TWA 0.05mg/m3

Biological Limit Values: No biological limit allocated.

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protective Equipment:

PERSONAL PROTECTION: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White crystalline solid.
Odour:	Odourless.
pH:	Soluble in water (1% soln/water).
Vapour pressure (mm of Hg at °C):	Not available.
Vapour density:	7.4 (Air=1)

Boiling point/range (°C):	Decomposes.
Freezing/melting point (°C):	Melting point 60°C.
Solubility:	Soluble in cold water, methanol.
Specific gravity or density:	0.58
Flash Point:	Not available.
Flammable (explosive) limits:	Not available.
Ignition temperature:	Not available.
Molecular weight:	214.03 g/mole

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Heat and incompatible materials.
Incompatible Materials:	Reducing agents, aluminum, zinc, Common metals (corrosive) and sodium borohydride.

Hazardous Decomposition Products:

These products are carbon oxides (CO, CO2). Some metallic oxides.

Hazardous Reactions: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Exposure and Health Effects:

Extremely hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant). Severe over-exposure can result in death. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. The substance is toxic to blood, kidneys, lungs, liver.

Ingestion:

Hazardous if ingested.

Inhalation:

Hazardous if inhaled.

Eye Contact:

Irritating to eyes.

Skin Contact:

Irritating and permeator to skin.

Human/Animal data:	ORAL (LD50): Acute: 2600 mg/kg [Rat]. 4mg/kg [Mouse].
Carcinogenic Category:	Group 1: Carcinogenic to humans.
Other Carcinogenic Information:	CARCINOGENIC EFFECTS: Classified 1 (confirmed for human) by ACGIH, 1 (Known.) by NTP, +(PROVEN) by OSHA.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	This material is expected to be slightly toxic to aquatic life.
Persistence and degradability:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.
Mobility:	Not available.
Additional Information:	Not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Methods:

Recycle to process, if possible. Consult your local or regional authorities.

Special Precautions/Additional Informational:

Do not release into the environmental, item is dangerous to environment. Do not dispose of down drains, products is expected to be slightly toxic to aquatic life.

SECTION 14 - TRANSPORT INFORMATION

UN Number:	UN1688
UN Proper Shipping Name:	Sodium Cacodylate
Class and Subsidiary risk:	6.1
Packing Group:	PG II
Special Precautions for User:	Not available.
Hazchem Code:	2X

SECTION 15 - REGULATORY INFORMATION

Poison Schedule Number: S6

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS: April 11
Comments:

List of Publications referenced when creating this MSDS;
- Hazardous Substances Information System Consolidated Lists: Safe Work Australia.
- APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008(2004)] 3rd Edition: National Occupational Health and Safety Commission.
- Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997).
- IATA Dangerous Goods Regulations.
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
- Australia Standard for the Uniform Scheduling of Drugs and Poisons [SUSPD] (Australian Government Department of Health and Ageing).

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the National code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this MSDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.

… End of MSDS …