MSDS Number: **C0022** * * * * * *Effective Date:* ***09/15/09*** * * * * * *Supercedes:* ***07/03/07***

MSDS Material Safety Data Sheet

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

J.T.Baker®

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

CACODYLIC ACID SODIUM SALT

1. Product Identification

Synonyms: Sodium Cacodylate; cacodylic acid, sodium salt, trihydrate; cacodylic acid, sodium salt 98%; arsinic acid, dimethyl-, sodium salt; Cacodylic acid, sodium salt, trihydrate.
CAS No.: 124-65-2
Molecular Weight: 214.03
Chemical Formula: (CH3)2AsO2Na.3H2O
Product Codes: E258

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Cacodylate	124-65-2	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. CANCER HAZARD. CONTAINS ARSENIC WHICH CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE LIVER AND KIDNEY DAMAGE. USE ONLY WITH ADEQUATE VENTILATION AND RESPIRATORY EQUIPMENT.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 4 - Extreme (Poison)
Flammability Rating: 0 - None
Reactivity Rating: 1 - Slight
Contact Rating: 3 - Severe
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: Blue (Health)

Potential Health Effects

Inhalation:
Arsenic may cause inflammation of the mucous membranes with cough and foamy sputum, restlessness, dyspnea, cyanosis, and rales. Symptoms like those from ingestion exposure may follow. May cause pulmonary edema.
Ingestion:
Highly Toxic! May cause burning in esophagus, vomiting, and bloody diarrhea. Symptoms of cold and clammy skin, low blood pressure, weakness, headache, cramps, convulsions, and coma may follow. Strong garlic odor on breath, sweat, and urine may occur. May cause damage to liver and kidneys. A suspected fetal toxin. Death may occur from circulatory failure. Estimated lethal dose 120 milligrams.
Skin Contact:
May cause irritation with redness, pain. Dermal absorption is more likely with organic arsenic; symptoms may parallel ingestion.
Eye Contact:
May cause irritation with itching, burning, watering of eyes; may cause conjunctiva damage.
Chronic Exposure:

Arsenic on repeated or prolonged skin contact may cause bronzing of the skin, edema, dermatitis, and lesions. Repeated or prolonged inhalation of dust may cause damage to the nasal septum. Chronic exposure from inhalation or ingestion may cause hair and weight loss, a garlic odor to the breath and perspiration, excessive salivation and perspiration, central nervous system damage, hepatitis, gastrointestinal disturbances, cardiovascular damage, and kidney and liver damage. Arsenic compounds are known human carcinogens and may be teratogenic based on effects in laboratory animals.

Aggravation of Pre-existing Conditions:

No information found.

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4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure to this substance.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician:

If emesis if 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.

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5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
10ug(As)/m3 (TWA)
-ACGIH Threshold Limit Value (TLV):
0.01 mg(As)/m3 (TWA), listed as A1, confirmed human carcinogen.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a half-face high efficiency particulate respirator (NIOSH type N100 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Other Control Measures:

Any area where inorganic arsenic is stored, handled, used, etc., must be established as a 'Regulated Area' with controlled access, limited to authorized persons. Containers of inorganic arsenic and Regulated Areas must be labeled to show a CANCER SUSPECT AGENT is present. Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing arsenic or lead compounds are handled, processed, or stored. See OSHA substance-specific standard for more information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (arsenic: 29 CFR 1910 .1018; lead: 29 CFR 1910.1025).

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9. Physical and Chemical Properties

Appearance:
White crystals.
Odor:
Odorless.
Solubility:
Soluble in water.
Specific Gravity:
0.58

pH:
No information found.
% Volatiles by volume @ 21C (70F):
0
Boiling Point:
No information found.
Melting Point:
60C (140F)
Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg):
No information found.
Evaporation Rate (BuAc=1):
No information found.

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10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
May emit oxides of carbon and arsenic when heated to decomposition. Reducing agents may release toxic arsine gas.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Reducing agents, aluminum, zinc, common metals (corrosive) and sodium borohydride.
Conditions to Avoid:
Incompatibles.

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11. Toxicological Information

Toxicological Data:
Oral rat LD50: 2600 mg/kg; oral mouse LD50: 4 mg/kg; investigated as a reproductive effector.
Reproductive Toxicity:
Has shown teratogenic effects in laboratory animals.

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  --------\Cancer Lists\-----------------------------------------------------
-
                                          ---NTP Carcinogen---
  Ingredient                              Known    Anticipated    IARC
Category
  ------------------------------------   -----    -----------    ------------
-
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Sodium Cacodylate (124-65-2)	Yes	No	1

12. Ecological Information

Environmental Fate:
When released into the soil, this material is not expected to leach into groundwater.
Environmental Toxicity:
This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: SODIUM CACODYLATE
Hazard Class: 6.1
UN/NA: UN1688
Packing Group: II
Information reported for product/size: 1KG

International (Water, I.M.O.)

Proper Shipping Name: SODIUM CACODYLATE
Hazard Class: 6.1
UN/NA: UN1688
Packing Group: II
Information reported for product/size: 1KG

International (Air, I.C.A.O.)

Proper Shipping Name: SODIUM CACODYLATE
Hazard Class: 6.1
UN/NA: UN1688
Packing Group: II
Information reported for product/size: 1KG

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15. Regulatory Information

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  --------\Chemical Inventory Status - Part 1\-------------------------------
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  Ingredient                                          TSCA  EC   Japan
Australia
  ----------------------------------------------  ----  ---  -----  --------
-
  Sodium Cacodylate (124-65-2)                     Yes  Yes   No       Yes

  --------\Chemical Inventory Status - Part 2\-------------------------------
--
                                                              --Canada--
  Ingredient                                          Korea  DSL   NDSL  Phil.
  ----------------------------------------------  -----  ---   ----  -----
  Sodium Cacodylate (124-65-2)                     Yes   Yes   No     Yes

  --------\Federal, State & International Regulations - Part 1\--------------
--
                                              -SARA 302-    ------SARA 313----
--
  Ingredient                                  RQ    TPQ     List  Chemical
Catg.
  ----------------------------------------  ---   -----   ----  ------------
--
  Sodium Cacodylate (124-65-2)              100   100*    No    Arsenic comp

  --------\Federal, State & International Regulations - Part 2\--------------
--
                                                          -RCRA-    -TSCA-
  Ingredient                                  CERCLA     261.33     8(d)
  ----------------------------------------  ------     ------    ------
  Sodium Cacodylate (124-65-2)              1          No         No


Chemical Weapons Convention:  No     TSCA 12(b):  No     CDTA:  No
SARA 311/312:  Acute: Yes      Chronic: Yes  Fire: No  Pressure: No
Reactivity: No          (Pure / Solid)
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WARNING:
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

Australian Hazchem Code: 2X
Poison Schedule: None allocated.

WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. Other Information

NFPA Ratings: Health: **3** Flammability: **0** Reactivity: **0**
Label Hazard Warning:
DANGER! MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. CANCER HAZARD. CONTAINS ARSENIC WHICH CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE LIVER AND KIDNEY DAMAGE. USE ONLY WITH ADEQUATE VENTILATION AND RESPIRATORY EQUIPMENT.
Label Precautions:
Do not get in eyes, on skin, or on clothing.
Do not breathe dust.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
No Changes.
Disclaimer:
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