

# SAFETY DATA SHEET (S.D.S.)

## 1. IDENTIFICATION

**Product Name:** ADENA 6003  
**Product Number:** AD6003  
**Synonyms:** Compound, industrial process water treating, liquid  
**CAS Number:** Mixture  
**Product Use:** Microbiocide  
**Manufacturer/Supplier:** Adena Technologies  
**Address:** 101 Technology Lane  
 Export, PA 15632  
 www.adenatechnologies.com  
**General Information:** 888-247-2312  
**Chemical Emergency Number:** 800-255-3924

## 2. HAZARD(S) IDENTIFICATION

### GHS Classification:

Health (Appendix A)	Environmental	Physical (Appendix B)
Toxicity: Oral, Cat. 4, Dermal, Cat. 4 Skin Corrosion, Cat. 1 Eye Damage, Cat. 1 Skin Sensitization, Cat. 1	Aquatic Toxicity, Acute Cat. 1	Corrosive to Metals, Cat. 1

### GHS Label:

**Signal Word: DANGER**

**Symbol(s):**



### HAZARD STATEMENTS:

May be corrosive to metals  
 Causes severe skin burns and eye damage  
 May cause an allergic skin reaction.  
 Harmful if ingested/inhaled.  
 Harmful to aquatic life

### PRECAUTIONARY STATEMENTS:

#### Prevention:

Keep only in the original container.  
 Wear protective gloves, eye/face protection, protective clothing.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when handling this product. Do not breathe vapors or mists.



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	Avoid release to the environment.
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## **RESPONSE**

IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. RINSE MOUTH. DO NOT INDUCE VOMITING.

IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER OR SHOWER. WASH CONTAMINATED CLOTHING BEFORE REUSE. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ATTENTION.

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

## **STORAGE**

STORE LOCKED UP.

## **DISPOSAL**

DISPOSE OF CONTENTS AND CONTAINER IN ACCORDANCE WITH ALL LOCAL, REGIONAL, NATIONAL AND INTERNATIONAL REGULATIONS.

## **HAZARDS NOT OTHERWISE CLASSIFIED**

NONE KNOWN

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

COMPONENT NAME	CAS NO.	% BY WEIGHT
POTASSIUM DIMETHYLDITHIOCARBAMATE	128-03-0	12.5
WATER	7732-18-5	BALANCE

(SEE SECTION 8 FOR EXPOSURE LIMITS)

### **4. FIRST-AID MEASURES**

#### **Most important symptoms/effects, acute and delayed:**

**Eye:** Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.

**Skin:** Wash exposed area with plenty of water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.

**Inhalation:** If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If



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individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.

**Ingestion:** Do not induce vomiting. Rinse with copious amounts of water or milk first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, do not give fluids by mouth. In case of intentional ingestion of the product, seek medical assistance immediately; take individual to nearest medical facility.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Water fog, carbon dioxide, foam, dry chemical.

**Unsuitable Extinguishing Media:** None known

**Fire Fighting Procedures:** In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Fire fighters should enter the area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surface should be exposed. In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

**Unusual Fire and Explosion Hazards:** None known

**Hazardous Decomposition Products:** Carbon disulfide and dimethylamine may be generated upon acidification. Thermal degradation may generate vapors of hydrogen sulfide. Contact with fire or strong oxidants may generate methyl isothiocyanates, oxides of sulfur, nitrogen and carbon.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

**Methods and materials for containment and cleaning up:** Ventilate area of spill or release. Absorb small spills with suitable material (vermiculite, sand, clays, earth, etc.) And place into leak-proof container for later disposal. Flush balance of area with water. Dispose of all material in accordance with federal, state, and local laws.

**Small Spill:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively; if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large Spill:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. HANDLING AND STORAGE

**Handling:** Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest.

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Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Storage:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Satisfactory Materials of Construction:

Plexiglas, Teflon, Buna-N rubber, Viton, EPDM rubber, PVC - flexible Neoprene, Polyethylene - low density, Tygon R3603, Tyril 880, Silicone rubber, Hypalon, Stainless steels 304 and 316, 6/6 Nylon, Polyethylene - high density, Mild steel C1010, Polyethylene crosslink, Polypropylene, PVC – rigid, Butyl rubber, ABS (Plastic), Morton test liner (108 T 44LV), Dow Sillastic Tube, Rehau Tube, Polyurethane Liner, Norprene Tubing, FRP G-10, Pharmed Tubing.

NOTE: With respect to all other materials not listed above, user should be aware that use of such materials with this product may be hazardous and result in damages to such materials and other property and personal injuries. No data concerning such materials not listed above should be implied by the user.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL	Other PELS	Other PELS
POTASSIUM DIMETHYLDITHIOCARBAMATE	NONE LISTED	NONE LISTED	NONE LISTED	NONE LISTED	NONE LISTED	NONE LISTED

**Engineering Controls:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

## Personal Protective Equipment (PPE)



**Eye Protection:** Wear chemical safety goggles and face shield where splashing is possible OSHA'S eye and face protection regulations in 29 CFR 1910.133. Have eye-wash stations available where eye



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contact can occur.

**Skin Protection:** Avoid skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Chemical respirator with organic vapor cartridge and full face-piece. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint:	Not flammable
Lower Flammability Limit:	No Data
Upper Flammability Limit:	No Data
Initial Boiling Point and Boiling Range:	212°F @ 760mm Hg
Specific Gravity:	1.05 g/ml
Melting point/Freezing point:	-31°F
% Volatile:	No Data
Vapor Pressure:	0.01 mm OF Hg (@ 68°F)
Evaporation Rate (Water=1):	No Data
Viscosity:	No Data
% Solubility in Water:	Easily soluble in cold water and hot water
pH:	> 13.5
Odor/Appearance:	Pungent, ammoniacal/Clear to pale yellow solution
Appearance:	
Physical State:	Liquid
Form:	Liquid

### 10. STABILITY AND REACTIVITY

**Stability:** Material is stable under normal conditions.

**Incompatible materials:** Strong acids, strong oxidizers, reducing agents

**Hazardous Reactions/Decomposition Products:** Carbon disulfide and dimethylamine may be generated upon acidification. Thermal degradation may generate vapors of hydrogen sulfide.

**Conditions to avoid:** Contact with fire or strong oxidants may generate methyl isothiocyanates, oxides of sulfur, nitrogen, and carbon.

### 11. TOXICOLOGICAL INFORMATION

**Signs and Symptoms of Overexposure:**

**Acute Effects:**

**Eye Contact:** Causes serious eye damage.

**Adverse Symptoms:** Pain, watering, redness.

**Skin Contact:** Causes severe burns. May cause an allergic skin reaction.

**Adverse Symptoms:** Pain, irritation, redness, blistering.

**Inhalation:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

**Adverse Symptoms:** Stomach pains.

**Target Organ Effects:**

**Medical Conditions Aggravated by Exposure:**

**Acute Toxicity:**



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LD50, DERMAL, RABBIT, > 3000 mg/kg

LD50, ORAL, RAT, > 3000 mg/kg

**Skin corrosion/irritation:** Category 1

**Skin Sensitization:** Category 1.

**Serious eye damage/eye irritation:** Category 1

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards

**Developmental effects:** No known significant effects or critical hazards

**Fertility effects:** No known significant effects or critical hazards

**Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Aspiration hazard:** No known significant effects or critical hazards.

**Chronic Effects:** This product has been shown to be a weak sensitizer according to animal data. No instances of human sensitization are known. 90 day exposure studies did not reveal any adverse effects. This product has tested positive in several in vitro mutagenicity assays. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

#### Values for

LC50	Rainbow trout	0.36 mg/L, 96 hrs.
	Flathead minnow	0.06 mg/L, 96 hrs.
	Daphnia Magna:	0.34 mg/L, 48 hrs.

**Biodegradation:** Expected to biodegrade

**Bioaccumulation potential:** Not expected to bioaccumulate.

**Mobility in soil:** Not available.

**Other adverse ecological effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. DISPOSAL CONSIDERATIONS

**Disposal instructions:** Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Use EPA guidelines for the classification determination listed in 40 CFR parts 261.3. 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.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: disposal instructions).

**Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation (DOT) Proper Shipping Name:

UN3267, Corrosive liquid, basic, organic, n.o.s., (potassium dimethyldithiocarbamate), 8, PG III

**Hazard Class:** 8

**UN/NA Number:** UN3267

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Packing Group: III



Labels Required:

Special provisions: ERG Guide 153

International Maritime Organization (IMDG) Proper Shipping Name:

UN3267, Corrosive liquid, basic, organic, n.o.s., (potassium dimethyldithiocarbamate), 8, PG III

Hazard Class: 8

UN/NA Number: UN3267

Packing Group: III



Labels Required:

Special provisions: (EmS) F-A, S-B

Segregation group: 18-ALKALIES

ERG GUIDE: 153

HAZMAT CODE: 4935363

**SPECIAL PRECAUTIONS FOR USER:** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## 15. REGULATORY INFORMATION

**U.S. Federal Regulations:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from US Toxic Substances Control Act (TSCA) Inventory listing requirements.

**Clean Water Act (CWA) 311:** di-Methylamine

**CERCLA Hazardous Substance List (40 CFR 302.4):** di-Methylamine

**FDA:** This product is not allowed for food contact uses

**EPA Reg. No.:** 1448-381

**FIFRA:** This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**DANGER:** Corrosive. Causes eye and skin damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Avoid Contamination of food. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your





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State Water Board or Regional Office of the EPA.

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard – Yes  
Delayed Hazard – No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard – No

**SARA 302/304 Extremely hazardous substance:** No

**SARA 311/312 Hazardous chemical:** Yes

## SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Potassium dimethyldithiocarbamate	128-03-0	12.5
<b>Supplier notification</b>	Potassium dimethyldithiocarbamate	128-03-0	12.5

***SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.***

## Other federal regulations

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

Not regulated.

**Safe Drinking Water Act (SDWA):**

Not regulated.

## U.S. State Regulations

**U.S. Massachusetts RTK - Substance List**

Not regulated

**U.S. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**U.S. Pennsylvania RTK - Hazardous Substances**

Not regulated

**U.S. Rhode Island RTK**

Not regulated

**U.S. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

**Warning:** This product contains a material known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**Ingredient name**

potassium dimethyldithiocarbamate

**Cancer**

No.

**Reproductive**

Yes.

## 16. OTHER INFORMATION

**Issue date:** New SDS May 29, 2015





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**Revision Indicator:** 0.01

**Prepared by:** Dean Norwood, Technical Director

## **National Fire Protection Association (NFPA) Ratings:**

This information is intended solely for the use of individuals trained in the NFPA system:

**Health: 3 Flammability: 1 Reactivity: 1**

**List of abbreviations** LD50: Lethal Dose, 50%.  
LC50: Lethal Concentration, 50%.  
EC50: Effective concentration, 50%.  
TWA: Time weighted average.

**References** EPA: AQUIRE database  
HSDB® - Hazardous Substances Data Bank  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
IARC Monographs. Overall Evaluation of Carcinogenicity  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

## **Disclaimer:**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Browne Laboratories, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use outside of such directions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including:  
**NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE.**

No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be in a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out or relating to this contract, or breach thereof, shall be settle by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.