

# MATERIAL SAFETY DATA SHEET

SD2

FILE NO.: 009

MSDS DATE: 1/5/2016



---

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

---

PRODUCT NAME:SD2

SYNONYMS: Ethane(dithioperoxoic) acid, 2-(acetylamino)-3-(butylamino)-1,1-dimethyl-3-oxopropyl ester

PRODUCT CODES: WSU 1086

MANUFACTURER: WSU

DIVISION:

ADDRESS: 1610 NE Eastgate Blvd., Suite 650

EMERGENCY PHONE: CHEMTREC Within USA and Canada: 1 (800)424-9300

CHEMTREC Outside USA and Canada: 1 (800)527-3887

CHEMICAL NAME: Ethane(dithioperoxoic) acid, 2-(acetylamino)-3-(butylamino)-1,1-dimethyl-3-oxopropyl ester

CHEMICAL FAMILY: H2S Donor

CHEMICAL FORMULA: C<sub>13</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub>

PRODUCT USE: For Research Use Only, not for human or veterinary use

SECTION 1 NOTES:

---

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

---

**INGREDIENT:** (2-benzothiazolylsulfonyl)-Acetic acid

<u>CAS NO.</u>	<u>% WT</u>
1430811-09-8	≥95%

SECTION 2 NOTES:

---

## SECTION 3: HAZARDS IDENTIFICATION

---

EMERGENCY OVERVIEW: Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS

ROUTES OF ENTRY: No data is available

ACUTE HEALTH HAZARDS: Material may be irritating to the mucous membranes and upper respiratory tract

CHRONIC HEALTH HAZARDS: May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

SECTION 3 NOTES:

---

## SECTION 4: FIRST AID MEASURES

---

EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

SKIN: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel

# MATERIAL SAFETY DATA SHEET

FILE NO.: 009

SD2

MSDS DATE: 1/5/2016

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No data is available

SECTION 4 NOTES:

---

## SECTION 5: FIRE-FIGHTING MEASURES

---

FLAMMABLE LIMITS IN AIR, UPPER:  
(% BY VOLUME) LOWER:  
No Data No Data

FLASH POINT:

F: No Data

C: No Data

METHOD USED:

AUTOIGNITION TEMPERATURE:

F: No Data

C: No Data

NFPA HAZARD CLASSIFICATION

HEALTH: No Data

FLAMMABILITY: No Data

REACTIVITY: No Data

OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH: No Data

FLAMMABILITY: No Data

REACTIVITY: No Data

PROTECTION:

EXTINGUISHING MEDIA: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.  
Use water spray to cool fire-exposed containers.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: A solid water stream may be inefficient

SECTION 5 NOTES:

---

## SECTION 6: ACCIDENTAL RELEASE MEASURES

---

ACCIDENTAL RELEASE MEASURES: Avoid raising and breathing dust, and provide adequate ventilation.

PROTECTIVE EQUIPMENT: As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

ENVIRONMENTAL PRECAUTIONS: Take steps to avoid release into the environment, if safe to do so

SECTION 6 NOTES: Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations

---

## SECTION 7: HANDLING AND STORAGE

---

HANDLING AND STORAGE: Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

OTHER PRECAUTIONS: Keep container tightly closed. Store in accordance with information listed on the product insert

SECTION 7 NOTES:

---

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

---

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limit

# MATERIAL SAFETY DATA SHEET

SD2

RESPIRATORY PROTECTION: NIOSH approved respirator, as conditions warrant

FILE NO.: 009

MSDS DATE: 1/5/2016

EYE PROTECTION: Safety glasses

SKIN PROTECTION: Compatible chemical-resistant gloves

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Lab coat

WORK HYGIENIC PRACTICES: Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EXPOSURE GUIDELINES: Wash thoroughly after handling

SECTION 8 NOTES:

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

APPEARANCE: A crystalline solid

PHYSICAL STATE: Solid

pH AS SUPPLIED: No Data

BOILING POINT: No Data

F:

C:

MELTING POINT: No Data

F:

C:

FREEZING POINT: No Data

F:

C:

VAPOR PRESSURE (mmHg): No Data

@

F:

C:

VAPOR DENSITY (AIR = 1): No Data

@

F:

C:

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): No Data

@

F:

C:

EVAPORATION RATE: No Data

Solubility: ~2 mg/ml in DMSO; ~20 mg/ml in DMF

Molecular Formula & Weight: C<sub>13</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub> 320.47

---

## SECTION 10: STABILITY AND REACTIVITY

---

STABILITY: Stable

CONDITIONS TO AVOID (STABILITY): No Data Available

INCOMPATIBILITY (MATERIAL TO AVOID): Stable if stored in accordance with information listed on the product insert

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: No Data Available

HAZARDOUS POLYMERIZATION: No Data Available

CONDITIONS TO AVOID (POLYMERIZATION): No Data Available

SECTION 10 NOTES:

# MATERIAL SAFETY DATA SHEET

SD2

FILE NO.: 009

MSDS DATE: 1/5/2016

---

## SECTION 11: TOXICOLOGICAL INFORMATION

---

TOXICOLOGICAL INFORMATION: The toxicological effects of this product have not been thoroughly studied

SECTION 11 NOTES:

---

## SECTION 12: ECOLOGICAL INFORMATION

---

ECOLOGICAL INFORMATION: Avoid release into the environment  
Runoff from fire control or dilution water may cause pollution.

SECTION 12 NOTES:

---

## SECTION 13: DISPOSAL CONSIDERATIONS

---

WASTE DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

---

## SECTION 14: TRANSPORT INFORMATION

---

### U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Not dangerous goods  
HAZARD CLASS:  
ID NUMBER:  
PACKING GROUP:  
LABEL STATEMENT:

### WATER TRANSPORTATION

PROPER SHIPPING NAME: Not dangerous goods  
HAZARD CLASS:  
ID NUMBER:  
PACKING GROUP:  
LABEL STATEMENTS:

### AIR TRANSPORTATION

PROPER SHIPPING NAME: Not dangerous goods  
HAZARD CLASS:  
ID NUMBER:  
PACKING GROUP:  
LABEL STATEMENTS:

SECTION 14 NOTES: Transport in accordance with local, state, and federal regulations

---

## SECTION 15: REGULATORY INFORMATION

---

### U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): No

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): No

311/312 HAZARD CATEGORIES: No

313 REPORTABLE INGREDIENTS: No

STATE REGULATIONS: This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

SECTION 15 NOTES:

---

## SECTION 16: OTHER INFORMATION

---

# MATERIAL SAFETY DATA SHEET

SD2

FILE NO.: 009

MSDS DATE: 1/5/2016

---

PREPARATION INFORMATION: 1/5/2016

**DISCLAIMER:** This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.