Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1Product Identifier

Chemical Name 2-Bromothiophene

Catalogue # B688185

1.2Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Uses To be used only for scientific research and development. Not for use in humans or animals.

1.3 Details of the Supplier of the Safety Data Sheet

Company Will be updated as per company.

1.4Emergency Telephone Number

Emergency# Will be updated as per company.

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2. HAZARDS IDENTIFICATION

2.1/2.2 Classification of the Substance or Mixture and Label Elements

GHS Hazards Classification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Flammable Liquids (Category 3)

Acute Toxicity, Oral (Category 2)

Skin Irritation (Category 2)

Eye Damage/Irritation (Category 2A)

GHS Hazards Identification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Signal Word Danger

GHS Hazard Statements
H226 Flammable liquid and vapour.

H300 Fatal if swallowed.
H315 Causes skin irritation.

H319 Causes serious eye irritation.

GHS Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301/P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303/P361/P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and

easy to do - continue rinsing.

2.3Unclassified Hazards/Hazards Not Otherwise Classified

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1Substances

Molecular Formula: C₄H₃BrS Molecular Weight: 163.04

CAS Registry #: 1003-09-4 EC#: 213-699-4

Synonyms

2-Thienyl Bromide; NSC 4456;

3.2Mixtures

Not a mixture

4. FIRST AID MEASURES

4.1Description of First Aid Measures

General Advice

If medical attention is required, show this safety data sheet to the doctor.

If Inhaled

If inhaled, move person to fresh air. If not breathing, give artificial respiration and consult a physician.

In Case of Skin Contact

Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed.

In Case of Eye Contact

Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

If Swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

4.2Most Important Symptoms and Effects. Both Acute and Delayed

No data available

4.3Indication of any Immediate Medical Attention and Special Treatment Needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special Hazards Arising from the Substance or Mixture

Carbon oxides, Sulfur oxides, Hydrogen bromide

5.3Advice for Firefighters

Wear self contained breathing apparatus for fire fighting if necessary. Use personal protection equipment.

5.4Further Information

No data available.

6. ACCIDENTAL RELEASE MEASURES

6.1Personal Precautions. Protective Equipment and Emergency Procedures

Use recommended personal protective equipment (see Section 8). Adequate ventilation must be provided to ensure vapours or mists are not inhaled. Vapours are heavier than air and may accumulate in low areas. All sources of ignition, including sources of static discharge, must be removed from area.

6.2 Environmental Precautions

Material should not be allowed to enter the environment. Prevent further spillage or discharge into drains, if safe to do so.

6.3Methods and Materials for Containment and Cleaning Up

Contain the spill and then collect using non-combustible absorbent material (such as clay, diatomaceous earth, vermiculite or other appropriate material). Place material in a suitable, sealable container and then dispose according to local/national regulations and guidance (see Section 13).

6.4Reference to Other Sections

For protective equipment, refer to Section 8. For disposal, see Section 13.

7. HANDLING AND STORAGE

7.1Precautions for Safe Handling

Avoid contact with skin and eyes. Ventilation and proper handling are to be used to prevent the formation of vapours and mists. Remove all sources of ignition and take precautionary measures to prevent the buildup of electrostatic discharge (ground and bond containers as appropriate). No smoking, eating or drinking around this material. Wash hands after use.

7.2 Conditions for Safe Storage, Including any Incompatibilities#

Ensure container is kept securely closed before and after use. Keep in a well ventilated area and do not store with strong oxidizers or other incompatible materials (see Section 10).

Storage conditions:

7.3 Specific End Uses

For scientific research and development only. Not for use in humans or animals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Contains no components with established occupational exposure limits.

8.2Exposure Controls

Appropriate Engineering Controls

A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

Personal Protective Equipment

All recommendations below are advisory in nature and a risk assessment should be performed by the employer/end user prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

Eye/Face Protection

Safety goggles or face shield. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

Skin Protection

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements.

Gloves used for incidental exposures (splash protection) should be designated as "chemical resistant" by EU standard EN 374 with the resistance codes corresponding to the anticipated use of the material. Unrated gloves are not recommended.

Suggested gloves: AnsellPro Sol-Vex nitrile gloves style 37-175, 15 mil thickness.

Penetration time has not been determined.

Gloves used for prolonged direct exposure (immersion) should be designated "chemical resistant" as per EN 734 with the resistance codes corresponding to the anticipated use of the material.

Suggested gloves: AnsellPro Viton/Butyl gloves style 38-612, 4/8 mil thickness.

Penetration time has not been determined.

These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection.

Body Protection

Chemical-resistant bodysuit (laminated Tychem SL or equivalent).

Respiratory Protection

Recommended respirators are NIOSH-approved OV/Multi-gas/P100 or CEN-approved ABEK-FFP3 respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

A) Appearance B) Odour

C) Odour Threshold No data available

No data available D) pH

E) Melting Point/Freezing Point No data available

G) Flash point F) Initial Boiling Point/Boiling RangeNo data available

Will be updated as per company.

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This Safety Data Sheet contains 16 sections. All 16 sections must be present for this document to be valid.

No data available

I) Flammability (Solid/Gas)

No data available

K) Vapour Pressure

No data available

M) Relative Density

No data available

O) Partition Coefficient: n-octanol/water

No data available

Q) Decomposition Temperature

No data available

S) Explosive Properties

No data available

H) Evaporation Rate

No data available

J) Upper/Lower Flammability/Explosive Limits

No data available

L) Vapour Density

No data available

N) Solubility

No Data Available

P) Auto-Ignition Temperature

No data available

R) Viscosity

No data available

T) Oxidizing Properties

No data available

9.2 Other Information

no data available

10. STABILITY AND REACTIVITY

10.1Reactivity

No data available

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3Possibility of Hazardous Reactions

No data available

10.4Conditions to Avoid

No data available

10.5Incompatible Materials

Strong oxidizing agents.

10.6 Hazardous Decomposition Products

No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

A) Acute Toxicity

No data available

B) Skin Corrosion/Irritation

Moderate skin irritant.

C) Serious Eye Damage/Irritation

Moderate eye irritant.

D) Respiratory or Skin Sensitization

No data available

E)Germ Cell Mutagenicity

No data available

E)Carcinogenicity

No data available

G) Reproductive Toxicity/Teratogenicity

No data available

H) Single Target Organ Toxicity - Single Exposure

No data available

<u>||Single Target Organ Toxicity - Repeated Exposure</u>

No data available

J) Aspiration Hazard

No data available

K) Potential Health Effects and Routes of Exposure

Inhalation

May be harmful if inhaled. Material is extremely destructive to the mucous membranes and respiratory tract.

Ingestion

May be fatal if swallowed.

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Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eves

Causes eye irritation.

L)Signs and Symptoms of Exposure

No data available

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

M)Additional Information

RTECS: Not listed

12. ECOLOGICAL INFORMATION

12.1Toxicity

No data available

12.2Persistance and Degradability

No data available

12.3Bioaccumulative Potential

No data available

12.4 Mobility in Soil

No data available

12.5Results of PBT and vPvB Assessment

No data available

12.6 Other Adverse Effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

A) Product

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

B) Contaminated Packaging

Dispose of as above.

C)Other Considerations

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

14. TRANSPORT INFORMATION

14.1UN Number

DOT (US): 2929 IATA: 2929 IMDG: 2929 ADR/RID: 2929

14.2UN Proper Shipping Name

DOT (US)/IATA:

Toxic liquid, flammable, organic, n.o.s. (2-Bromothiophene)

IMDG/ARD/RID:

TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-BROMOTHIOPHENE)

14.3Transport Hazard Class(es)

DOT (US): 6.1 (3) IMDG: 6.1 (3) ADR/RID: 6.1 (3)

14.4Packing Group

DOT (US): II IATA: II IMDG: II ADR/RID: II

14.5 Environmental Hazards

DOT (US): None IATA: None IMDG: None ADR/RID: None

14.6 Special Precautions for User

None

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

15.1Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

A) Canada

DSL/NDSL Status: This product or a component of this product is registered on the Canadian DSL/NDSL.

B) United States

TSCA Status: This product or a component is listed on the US EPA TSCA.

C) European Union

ECHA Status: This product is not registered with the EU ECHA.

15.2 Chemical Safety Assessment

No data available

16. OTHER INFORMATION

16.1 Revision History

Original Publication Date: N/A

16.2List of Abbreviations

LD50 Median lethal dose of a substance required to kill 50% of a test population.

LC50 Medial lethal concentration of a substance required to kill 50% of a test population.

LDLo Lowest known lethal dose TDLo Lowest known toxic dose

IARC International Agency for Research on Cancer

NTP National Toxicology Program

RTECS Registry of Toxic Effects of Chemical Substances

16.3Further Information

Copyright 2015. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.

Disclaimer

The Final Document will be available at the time of consignment. # Can vary as per company.

End of Safety Data Sheet.