

Safety Data Sheet 5H669Y1 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 02/04/2019 Version: 1.0

| SECTION 1: Identification | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1. Identification | | |
| | : Substance | |
| Substance name | : 3-Bromo-4-(bromomethyl)thiophene | |
| CAS No | : 40032-80-2 | |
| | : 5H66-9-Y1 | |
| Formula | : C5H4Br2S | |
| Other means of identification | : MFCD09817482 | |
| 1.2. Relevant identified uses of the substa | ance or mixture and uses advised ag | ainst |
| Use of the substance/mixture | : Laboratory chemicals Manufacture of substances Scientific research and development | |
| 1.3. Details of the supplier of the safety da | ata sheet | |
| SynQuest Laboratories, Inc. P.O. Box 309 Alachua, FL 32615 - United States of America T (386) 462-0788 - F (386) 462-7097 info@synquestlabs.com - www.synquestlabs.com 1.4. Emergency telephone number | | |
| | : (844) 523-4086 (3E Company - Acco | aunt 10068) |
| | . (0++) 020 +000 (0E 0011party - A000 | |
| SECTION 2: Hazard(s) identification | | |
| 2.1. Classification of the substance or mix | kture | |
| Classification (GHS-US) | | |
| Acute Tox. 4 (Inhalation)H332 - Harmful if inhaSkin Corr. 1BH314 - Causes severeEye Dam. 1H318 - Causes seriouSTOT SE 3H335 - May cause resFull text of H-phrases: see section 16 | e skin burns and eye damage is eye damage | |
| 2.2. Label elements | | |
| GHS-US labeling | | |
| Hazard pictograms (GHS-US) | GHS05 GHS07 | |
| Signal word (GHS-US) | : Danger | |
| Hazard statements (GHS-US) | : H302+H312+H332 - Harmful if swall H314 - Causes severe skin burns an H335 - May cause respiratory irritation | d eye damage |
| Precautionary statements (GHS-US) | P301+P312 - If swallowed: Call a PC P301+P330+P331 - If swallowed: rin P302+P352 - If on skin: Wash with p P303+P361+P353 - If on skin (or hai skin with water/shower P304+P340 - If inhaled: Remove per | andling hen using this product I-ventilated area ctive clothing/eye protection/face protection DISON CENTER or doctor/ physician if you feel unwell se mouth. Do NOT induce vomiting lenty of soap and water r): Take off immediately all contaminated clothing. Rinse son to fresh air and keep comfortable for breathing cautiously with water for several minutes. Remove contact ntinue rinsing |
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| | P363 - Wash contaminated P403+P233 - Store in a well P405 - Store locked up | minated clothing and wash it b | before reuse ner tightly closed | |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 2.3. Other hazards Other hazards not contributing to the | : Lachrymator. | | | |
| classification | . Lachrymator. | | | |
| 2.4. Unknown acute toxicity (GHS US |) | | | |
| Not applicable | | | | |
| SECTION 3: Composition/informa | tion on ingredients | | | |
| 3.1. Substance | : Mono-constituent | | | |
| Substance type | | | | |
| Name | Product identifier | % | Classification (GHS-US) | |
| 3-Bromo-4-(bromomethyl)thiophene (Main constituent) | (CAS No) 40032-80-2 | <= 100 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 | |
| Full text of H-phrases: see section 16 | | | | |
| 3.2. Mixture | | | | |
| Not applicable | | | | |
| SECTION 4: First aid measures | | | | |
| 4.1. Description of first aid measures | | | | |
| First-aid measures general | where possible). Move the a | ffected personnel away from the | | |
| First-aid measures after inhalation | respiration. Get immediate n | nedical advice/attention. | thing. If not breathing, give artificial | |
| First-aid measures after skin contact First-aid measures after eye contact | medical advice/attention. | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Get immediate medical advice/attention. Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if | | |
| First-aid measures after ingestion | present and easy to do. Con | tinue rinsing. Get immediate n | | |
| · · · · · · · · · · · · · · · · · · · | | nmediate medical advice/attent | | |
| 4.2. Most important symptoms and e | fects, both acute and delayed | | | |
| Symptoms/injuries | : The most important known s 2.2) and/or in section 11. | symptoms and effects are desc | cribed in the labelling (see section | |
| Symptoms/injuries after inhalation | : Material is destructive to tiss shortness of breath, headac | | es and upper respiratory tract. Cough, | |
| 4.3. Indication of any immediate med Treat symptomatically. | ical attention and special treatme | nt needed | | |
| SECTION 5: Firefighting measure | 5 | | | |
| 5.1. Extinguishing media | | | | |
| Suitable extinguishing media | : Alcohol resistant foam. Carb appropriate for surrounding | | r spray. Use extinguishing media | |
| 5.2. Special hazards arising from the | | | | |
| Fire hazard | : Thermal decomposition gen | | | |
| Explosion hazard | : Risk of explosion if heated u containers. | nder confinement. Use water s | spray or fog for cooling exposed | |
| 5.3. Advice for firefighters | | | | |
| Firefighting instructions | : In case of fire: Evacuate are | a. Fight fire remotely due to th | e risk of explosion. | |
| Protection during firefighting | | | on with self contained breathing sure controls/personal protection". | |

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| SECTION 6: Accidental release meas | ures |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1. Personal precautions, protective equ | ipment and emergency procedures |
| General measures | : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, fumes, vapor or spray. |
| 6.1.1. For non-emergency personnel | |
| Emergency procedures | : Only qualified personnel equipped with suitable protective equipment may intervene. |
| 6.1.2. For emergency responders | |
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level. |
| 6.2. Environmental precautions | |
| Avoid release to the environment. Notify authoritie | es if product enters sewers or public waters. |
| 6.3. Methods and material for containmer | nt and cleaning up |
| For containment | : Stop leak if safe to do so. Dike for recovery or absorb with appropriate material. |
| Methods for cleaning up | : Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use explosion-proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Ventilate area. |
| Other information | : For disposal of solid materials or residues refer to section 13 : "Disposal considerations". |
| 6.4. Reference to other sections | |
| No additional information available | |
| SECTION 7: Handling and storage | |
| 7.1. Precautions for safe handling | |
| Precautions for safe handling | : Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Do not breathe fumes, mist, spray, vapors. Wear personal protective equipment. Avoid contact with skin and eyes. |
| Hygiene measures | : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, including | g any incompatibilities |
| Technical measures | : Comply with applicable regulations. |
| Storage conditions | : Keep container closed when not in use. |
| Incompatible materials | : Refer to Section 10 on Incompatible Materials. |
| Storage temperature | : 2 - 8 °C Use explosion proof refrigerator |
| Storage area | : Store in dry, well-ventilated area. Light sensitive. |
| | |

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

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No additional information available

| 8.2. Exposure controls | | |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Appropriate engineering controls | : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. | |
| Hand protection | : Protective gloves. 29 CFR 1910.138: Hand Protection. | |
| Eye protection | : Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection. | |
| Skin and body protection | : Wear suitable protective clothing. | |
| Respiratory protection | : In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory Protection. | |
| Other information | : Safety shoes. 29 CFR 1910.136: Foot Protection. | |
| SECTION 9: Physical and chemical properties | | |
| 0.1 Information on basic physical and chamical properties | | |

| 9.1. | Information on basic physical and chemical properties | | | |
|-----------|-------------------------------------------------------|---------------------|-----------------|-----|
| Physical | l state | : Liquid | | |
| Color | | : No data available | | |
| Odor | | : No data available | | |
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| ······································ | | , |
|---------------------------------------------|---|-------------------|
| Odor threshold | : | No data available |
| рН | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | No data available |
| Relative evaporation rate (butyl acetate=1) | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Explosion limits | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Vapor pressure | : | No data available |
| Relative density | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Molecular mass | : | 255.958 g/mol |
| Solubility | : | No data available |
| Log Pow | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |

9.2. **Other information**

No additional information available

| SECTION 10: Stability and reactivity |
|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1. Reactivity |
| No additional information available |
| 10.2. Chemical stability |
| The product is stable at normal handling and storage conditions. |
| 10.3. Possibility of hazardous reactions |
| No additional information available |
| 10.4. Conditions to avoid |
| Keep away from heat, sparks and flame. |
| 10.5. Incompatible materials |
| Strong oxidizing agents. |
| 10.6. Hazardous decomposition products |
| Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case |

osition products in Under normal condit ardous decomposition products should not be produced. Hazardous 0 fire, see Section 5.

| SECTIO | SECTION 11: Toxicological information | | |
|--------|---------------------------------------|--|--|
| 11.1. | Information on toxicological effects | | |
| | | | |

| Acute toxicity | : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled. |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Skin corrosion/irritation | : Causes severe skin burns and eye damage. |
| Serious eye damage/irritation | : Causes serious eye damage. |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : May cause respiratory irritation. |

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| Specific target organ toxicity (repeated exposure) | : Not classified |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Aspiration hazard | : Not classified |
| Symptoms/injuries after inhalation | : Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough, shortness of breath, headache, nausea. |

| SECTIC | DN 12: Ecological information |
|------------|-------------------------------|
| 12.1. | Toxicity |
| No additio | onal information available |
| 12.2. | Persistence and degradability |
| No additio | onal information available |
| 12.3. | Bioaccumulative potential |
| No additio | onal information available |
| 12.4. | Mobility in soil |
| No additio | onal information available |
| 12.5. | Other adverse effects |

No additional information available

| SECTION 13: Disposal considerations | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------------|--|--|
| 13.1. Waste treatment methods | | | |
| Waste treatment methods | : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber. | | |
| Waste disposal recommendations | : Dispose of contents/container in accordance with licensed collector's sorting instructions. | | |
| Additional information | : Recycle the material as far as possible. | | |

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Transport document description

UN-No.(DOT) Proper Shipping Name (DOT) Transport hazard class(es) (DOT) Hazard labels (DOT)

Packing group (DOT)

DOT Packaging Non Bulk (49 CFR 173.xxx)

DOT Packaging Bulk (49 CFR 173.xxx)

DOT Symbols

DOT Special Provisions (49 CFR 172.102)

- : UN2922 Corrosive liquids, toxic, n.o.s., 8, III
- : UN2922
- : Corrosive liquids, toxic, n.o.s.
- : 8 Class 8 Corrosive material 49 CFR 173.136
- : 8 Corrosive



- : III Minor Danger
- : 203
- : 241
- : G Identifies PSN requiring a technical name

: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

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| DOT Packaging Exceptions (49 CFR 173.xxx) | : 154 |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 5L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 60 L |
| DOT Vessel Stowage Location | : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded. |
| DOT Vessel Stowage Other | : 40 - Stow "clear of living quarters" |
| Other information | : No supplementary information available. |
| TDG | |
| No additional information available | |
| Transport by sea | |
| UN-No. (IMDG) | : 2922 |
| Proper Shipping Name (IMDG) | : CORROSIVE LIQUID, TOXIC, N.O.S. |
| Class (IMDG) | : 8 - Corrosive substances |
| Packing group (IMDG) | : III - substances presenting low danger |
| Air transport | |
| UN-No. (IATA) | : 2922 |
| Proper Shipping Name (IATA) | : Corrosive liquid, toxic, n.o.s. |
| Class (IATA) | : 8 - Corrosives |
| Packing group (IATA) | : III - Minor Danger |

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| 3-Bromo-4-(bromomethyl)thiophene | CAS No 40032-80-2 | 100% |
|----------------------------------|-------------------|------|
| | | |

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

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| Full text of H- | phrases: | | |
|----------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | e Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4 | |
| Acut | e Tox. 4 (Inhalation) | Acute toxicity (inhalation) Category 4 | |
| Acut | e Tox. 4 (Oral) | Acute toxicity (oral) Category 4 | |
| Eye | Dam. 1 | Serious eye damage/eye irritation Category 1 | |
| Skin | Corr. 1B | Skin corrosion/irritation Category 1B | |
| STO | T SE 3 | Specific target organ toxicity (single exposure) Category 3 | |
| H302 | 2 | Harmful if swallowed | |
| H312 | 2 | Harmful in contact with skin | |
| H314 | 4 | Causes severe skin burns and eye damage | |
| H318 | 8 | Causes serious eye damage | |
| H332 | 2 | Harmful if inhaled | |
| H33 | 5 | May cause respiratory irritation | |
| NFPA health NFPA fire ha: NFPA reactiv | e hazard : 1 - Must be preheated before ignition can occur. | | |
| HMIS III Ratii Health Flammability | ng | 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, | |
| - Idining | | solids and semi solids having a flash point above 200 F. (Class IIIB) | |
| Physical | | : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. | |

SDS US (GHS HazCom 2012)

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