



| Reviewed on 04/22/2014 |
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| 1 Identification |
| Product identifier Product name: 2-Bromo-5-hydroxy-3-methylpyridine |
| Stock number: H64567 |
| CAS Number: 1003711-43-0 |
| Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development |
| Details of the supplier of the safety data sheet |
| Manufacturer/Supplier: Alfa Aesar |
| Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street |
| Ward Hill, MA 01835-8099 Tel: 800-343-0660 |
| Fax: 800-322-4757 Email: tech@alfa.com |
| www.alfa.com Information Department: Health, Safety and Environmental Department |
| Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. |
| |
| 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) |
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| GHS07 |
| Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. |
| STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. |
| Label elements |
| GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms |
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| GHS07 |
| Signal word Warning Hazard statements |
| Hada Gauses skin irritation. H319 Causes serious eye irritation. |
| H335 May cause respiratory irritation. Precautionary statements |
| P261 Avoid breathing dust/fume/gas/mist/vapours/sprav |
| P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P405 Store locked up. |
| P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification |
| D2B - Toxic material causing other toxic effects |
| (\underline{T}) |
| Classification system |
| HMIS ratings (scale 0-4) (Hazardous Materials Identification System) |
| HEALTH I Health (acute effects) = 1 |
| FIRE Flammability = 1 REACTIVITY Physical Hazard = 1 |
| Other hazards |
| Results of PBT and vPvB assessment PBT: Not applicable. |
| vPvB: Not applicable. |
| 3 Composition/information on ingredients |
| Chemical characterization: Substances CAS# Description: |
| 1003711-43-0 2-Bromo-5-hydroxy-3-methylpyridine |
| 4 First-aid measures |
| Description of first aid measures After inhalation |
| Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. |
| After skin contact Immediately wash with water and soap and rinse thoroughly. |
| Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. |
| After swallowing Seek medical treatment. (Contd. on page 2) |
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Product name: 2-Bromo-5-hydroxy-3-methylpyridine

(Contd. of page 1)

Information for doctor

Most important symptoms and effects, both acute and delayed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen bromide (HBr) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 7 Handling and storage Handling Precautions for safe handling

Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace.

Information about protection against explosions and fires: No information known.

Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data

Exposure controls

Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all solied and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eves and skin

Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. **Breathing equipment:** Use suitable respirator when high concentrations are present.

Recommended filter device for short term use: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. Protection of hands:

Impervious gloves

The protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. **Penetration time of glove material (in minutes)** Not determined **Eye protection:** Safety glasses **Body protection:** Protective work clothing.

9 Physical and chemical properties

| 9 Physical and chemical properties | 5 |
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| Information on basic physical and ch General Information Appearance: Form: Color: Odor: | hemical properties Powder White Not determined |
| Odor threshold: | Not determined. |
| pH-value: | Not applicable. |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: | Not determined Not determined Not determined |
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(Contd. on page 3)

Product name: 2-Bromo-5-hvdroxy-3-methylpyridine

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|---|---|--------------------|
| Product name: 2-Bromo-5-hydroxy | y-3-methylpyridine | |
| | | (Contd. of page 2, |
| Flammability (solid, gaseous) | Not determined. | |
| Ignition temperature: Decomposition temperature: | Not determined Not determined | |
| Auto igniting: | Not determined. | |
| Danger of explosion: | Not determined. | |
| Explosion limits: Lower: | Not determined | |
| Upper: | Not determined | |
| Vapor pressure: Density: | Not applicable. Not determined | |
| Relative density | Not determined. | |
| Vapor density Evaporation rate | Not applicable. Not applicable. | |
| Solubility in / Miscibility with | | |
| Water: Partition coefficient (n-octanol/wate | Not determined er): Not determined. | |
| Viscosity: | | |
| dynamic: kinematic: | Not applicable. Not applicable. | |
| Other information | Not applicable. No further relevant information available. | |
| 0 01-1-1114, and reactivity | | |
| O Stability and reactivity Reactivity No information known. | | |
| Chemical stability Stable under record | ommended storage conditions. | |
| Thermal decomposition / conditions Possibility of hazardous reactions F | is to be avoided: Decomposition will not occur if used and stored according to specifications. | |
| Conditions to avoid No further releva | vant information available. | |
| Incompatible materials: Oxidizing ag | aents | |
| Hazardous decomposition products Carbon monoxide and carbon dioxide | ۶. ۶ | |
| Nitrogen oxides Hydrogen bromide | | |
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| 1 Toxicological information | | |
| Information on toxicological effects Acute toxicity: No effects known. | | |
| LD/LC50 values that are relevant for | | |
| Skin irritation or corrosion: Causes Eye irritation or corrosion: Causes s | s skin irritation. | |
| Sensitization: No sensitizing effects k | known | |
| Germ cell mutagenicity: No effects K | known. ata on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. | |
| Reproductive toxicity: No effects kno | 10WN. | |
| Specific target organ system toxicit | ity - repeated exposure: No effects known. ity - single exposure: May cause respiratory irritation. | |
| Aspiration hazard: No effects known. | n. | |
| Subacute to chronic toxicity: No effe | | |
| ¥ | | |
| 2 Ecological information | | |
| Toxicity Aquatic toxicity: No further relevant i | in the second | |
| Persistence and degradability No fu | urther relevant information available. | |
| Bioaccumulative potential No furthe Mobility in soil No further relevant inf | er relevant information available. | |
| Additional ecological information: | | |
| General notes: Avoid transfer into the Results of PBT and vPvB assessme | | |
| PBT: Not applicable. | ent | |
| vPvB: Not applicable. Other adverse effects No further rele | overt information available | |
| | งัชกับ ที่กับกาสของ สังสิทธิมาธ. | |
| 13 Disposal considerations | | |
| Waste treatment methods Recommendation Consult state loca | al as national regulations to oncure proper disposal | |
| Uncleaned packagings: | al or national regulations to ensure proper disposal. | |
| Recommendation: Disposal must be | e made according to official regulations. | |
| 4 Transport information | | |
| UN-Number DOT, ADN, IMDG, IATA | Not applicable | |
| UN proper shipping name DOT, ADN, IMDG, IATA | | |
| DOT, ADN, IMDG, IATA Transport hazard class(es) | Not applicable | |
| DOT, ADR, ADN, IMDG, IATA | | |
| Class | Not applicable | |
| Packing group DOT, IMDG, IATA | Not applicable | |
| Environmental hazards: | Not applicable. | |
| Special precautions for user | Not applicable. | |
| Transport in bulk according to Anne | nex II of MARPOL73/78 and the IBC Code Not applicable. | (Contd. on page |
| | | (Contra on no |

| Transport/Additional information: DOT Marine Polutant (DOT): No UN "Model Regulation": - | | eviewed on 04/22/20 |
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| DOT Marine Pollutant (DOT): No UN "Model Regulation": - 37 Regulatory Information - State Regulation: Information - 38 Regulatory Information - State Regulatory Information - 38 Regulatory Information - 39 Regulatory Information - 39 Regulatory Information - 39 Regulatory Information - 39 Regulatory Information - 30 Rep | | (Contd. of page |
| No UN "Model Regulation": - SRegulatory information - Status, health and environmental regulations/legislation specific for the substance or mixture status and another product is classified and labeled in accordance with 25 CFR 1910 (OSHA HCS) Haard pictograms Status, health and environmental regulations/legislation specific for the substance or mixture status and pictograms Signal word Warning Haard pictograms Has of UN Status and Status | • | |
| Seguilation information Select, health and environmental regulations/legislation specific for the substance or mixture start pictograms Select, health and environmental regulations/legislation specific for the substance or mixture start pictograms Select, health and environmental regulations/legislation specific for the substance or mixture start pictograms Select, health and environmental regulations/legislation specific for the substance or mixture start pictograms Select, health and environmental regulations/legislation specific for the substance or mixture start statements Histo Causes selects with intervent i | | |
| safety, health and environmental regulations/egislation specific for the substance or mixture HS base learners The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) HS base learners HS Causes Serious Serious Content of the Serie | UN "Model Regulation": - | |
| Safety, health and environmental regulations/legislation specific for the substance or mixture diffs babe learners the product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms Gifsor | | |
| Signal word Warning Hazard statements H315 Gauses skin Irritation. H319 Gauses Skin Irritation. H310 Gauses Jone Iocked up. H304 H304 H304 H510 Remove person to fresh air and keep comfortable for breathing. H304 H304 H510 H412D: Remove person to fresh air and keep comfortable for breathing. H304 H510 H412D: Remove person to fresh air and keep comfortable for breathing. H304 H510 H412D: Remove person to fresh air and keep comfortable for breathing. H305 Gause Jone Iocked up. H4100 H210 H210 H210 H210 H210 H210 H210 H | Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) | |
| Hazard statements [•] H315 Causes skin irritation. H315 Causes skin irritation. H316 Causes skin irritation. H316 Causes skin irritation. H317 Causes skin irritation. H316 Causes skin irritation. H316 Causes skin irritation. H326 May cause respiratory irritation irritation. H326 May cause respiratory irritation irritation. H326 May cause respiratory irritation irritation. H326 May cause respiratory irritation. H326 May cause respiratory irrita | GHS07 | |
| Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not a conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation of the American Chemical Society) HMIS: Hezardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LCSS: Lettial concerning information System (Canada) LCSS: Lettial concerning information System (Canada) | Hazard statements H315 Causes skin irritation. H315 Causes serious eye irritation. H315 Causes serious eye irritation. H325 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue r P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of ti to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as define product must not be used for commercial purposes or in formulations for commercial purposes. This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, the | his product is restric ed by TSCA. This |
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| USAA, Ucupational safety and relatin Administration (USA) NTP: National Toxicology Program (USA) | Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration50 percent | |