

1-(3-fluorophenyl)piperazine Safety Data Sheet 3H32339 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 11/27/2017 Version: 1.0

| SECTION 1: Identification | |
|--|--|
| 1.1. Identification | • · · · |
| Product form | : Substance |
| Substance name | : 1-(3-fluorophenyl)piperazine |
| CAS No | : 3801-89-6 |
| Product code | : 3H32-3-39 |
| Formula | : C10H13FN2 |
| Other means of identification | : MFCD03412122 |
| 1.2. Relevant identified uses of the subs | tance or mixture and uses advised against |
| Use of the substance/mixture | : Laboratory chemicals Manufacture of substances Scientific research and development |
| 1.3. Details of the supplier of the safety | data 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 | <u>n</u> |
| 1.4. Emergency telephone number | |
| Emergency number | : (844) 523-4086 (3E Company - Account 10069) |
| SECTION 2: Hazard(s) identification | |
| 2.1. Classification of the substance or m | nixture |
| Classification (GHS-US) | |
| Skin Irrit. 2 H315 - Causes skin irritation | |
| Eye Irrit. 2A H319 - Causes serious eye irrita | tion |
| | |
| STOT SE 3 H335 - May cause respiratory irr | itation |
| | itation |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 | itation |
| STOT SE 3H335 - May cause respiratory irrFull text of H-phrases: see section 162.2.Label elements | itation |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling | itation |
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| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling | : CHS07 |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling | |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) | : GHS07 : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) | : GHS07 : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) | : GHS07 : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation : P261 - Avoid breathing fumes, mist, spray, vapors |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) | : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation : P261 - Avoid breathing fumes, mist, spray, vapors P264 - Wash skin thoroughly after handling P271 - Use only outdoors or in a well-ventilated area |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) | : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation : P261 - Avoid breathing fumes, mist, spray, vapors P264 - Wash skin thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective gloves/protective clothing/eye protection/face protection |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) | : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation : P261 - Avoid breathing fumes, mist, spray, vapors P264 - Wash skin thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+P352 - If on skin: Wash with plenty of soap and water |
| STOT SE 3 H335 - May cause respiratory irr Full text of H-phrases: see section 16 2.2. Label elements GHS-US labeling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) | : Warning : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation : P261 - Avoid breathing fumes, mist, spray, vapors P264 - Wash skin thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective gloves/protective clothing/eye protection/face protection |
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|---|---|--|--------------------|---------------------------------------|--|
| 2.3. Other hazards | | | | | |
| lo additional information available | | | | | |
| .4. Unknown acute toxicity (GHS US |) | | | | |
| lot applicable | | | | | |
| ECTION 3: Composition/informa | tion on ingredients | | | | |
| .1. Substance | | | | | |
| substance type | : Mono-constituent | | | | |
| Name | Product identi | fier | % | Classification (GHS-US) | |
| 1-(3-fluorophenyl)piperazine (Main constituent) | (CAS No) 3801-89-6 <= 100 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 | | | | |
| ull text of H-phrases: see section 16 | | | | · · · · · · · · · · · · · · · · · · · | |
| .2. Mixture | | | | | |
| ot applicable | | | | | |
| ECTION 4: First aid measures | | | | | |
| 1. Description of first aid measures | | | | | |
| irst-aid measures general | | | | mmediately (show the label | |
| | where possible). Move | • | , | | |
| irst-aid measures after inhalation | respiration. Get medica | al advice/attention. | | ig. If not breathing, give artificial | |
| irst-aid measures after skin contact | : Wash with plenty of so | • | | | |
| irst-aid measures after eye contact | present and easy to do | . Continue rinsing. Get | medical advice/ | | |
| rst-aid measures after ingestion | mouth out with water. | Get medical advice/atte | ntion. | unconscious person. Rinse | |
| | d effects, both acute and delayed | | | | |
| ymptoms/injuries | 2.2) and/or in section 1 | | ects are describe | ed in the labelling (see section | |
| .3. Indication of any immediate med | ical attention and special tre | atment needed | | | |
| reat symptomatically. | | | | | |
| ECTION 5: Firefighting measures | 5 | | | | |
| .1. Extinguishing media | | | | | |
| uitable extinguishing media | : Alcohol resistant foam appropriate for surrour | | owder. Water sp | oray. Use extinguishing media | |
| .2. Special hazards arising from the | substance or mixture | | | | |
| ire hazard | : Thermal decomposition | n generates: Carbon o | ides. Hydrogen | fluoride. Nitrogen oxides. | |
| xplosion hazard | : Risk of explosion if hea containers. | ated under confinement | . Use water spra | ay or fog for cooling exposed | |
| 3. Advice for firefighters | | | | | |
| irefighting instructions | : In case of fire: Evacua | e area. Fight fire remo | tely due to the ri | sk of explosion. | |
| rotection during firefighting | | : Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection". | | | |
| ECTION 6: Accidental release mo | easures | | | | |
| 1. Personal precautions, protective | equipment and emergency | procedures | | | |
| eneral measures | : Evacuate unnecessary vapor or spray. | personnel. Ensure ade | equate air ventila | ation. Do not breathe gas, fumes, | |
| 1.1. For non-emergency personnel | | | | | |
| mergency procedures | : Only qualified personn | el equipped with suitab | le protective equ | uipment may intervene. | |
| | | | | | |
| .1.2. For emergency responders rotective equipment | · Do not attempt to take | action without suitable | nrotective equin | ment. For further information | |
| | refer to section 8: "Exp | | | | |
| mergency procedures | | • | • | es, particularly at or below ground | |
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| 6.2. Environmental precautions | | | |
|---|---|--|--|
| Avoid release to the environment. Notify author | prities if product enters sewers or public waters. | | |
| 6.3. Methods and material for contain | . Methods and material for containment 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, inclu | ding 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 area | : Store in dry, cool, well-ventilated area. | | |
| | | | |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

| 11/28/2017 | ENI (English LIS) | SDS ID: 3H32330 | 3/6 |
|---|----------------------------|-----------------|-----|
| Vapor pressure | : No data available | | |
| Oxidizing properties | : No data available | | |
| Explosive properties | : No data available | | |
| Explosion limits | : No data available | | |
| Flammability (solid, gas) | : No data available | | |
| Relative evaporation rate (butyl acetate=1) | : No data available | | |
| Flash point | : > 110 °C | | |
| Boiling point | : 145 - 155 °C (@ 3 mm Hg) | | |
| Freezing point | : No data available | | |
| Melting point | : No data available | | |
| рН | : No data available | | |
| Odor threshold | : No data available | | |
| Odor | : No data available | | |
| Color | : No data available | | |
| Physical state | : Liquid | | |
| 9.1. Information on basic physical and | d chemical properties | | |

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| Relative density | : No data available |
|---------------------------------|---------------------|
| Relative vapor density at 20 °C | : No data available |
| Molecular mass | : 180.222 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

Acid chlorides. Acid anhydrides. Strong acids. Strong bases. 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 of fire, see Section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Acute toxicity | : Not classified |
|--|-------------------------------------|
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| 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. |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |

| SECTI | SECTION 12: Ecological information | | | |
|----------|-------------------------------------|--|--|--|
| 12.1. | Toxicity | | | |
| No addit | ional information available | | | |
| 12.2. | Persistence and degradability | | | |
| No addit | ional information available | | | |
| 12.3. | Bioaccumulative potential | | | |
| No addit | No additional information available | | | |

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

| | _ | | |
|--|-------------------|-----------------------------------|--|
| SECTION 13: Disposal consider | ations | | |
| 13.1. Waste treatment methods | | | |
| Waste treatment methods | : Remove to an a | uthorized incinerator equipped w | ith an afterburner and a flue gas scrubber. |
| Waste disposal recommendations | : Dispose of cont | ents/container in accordance with | n licensed collector's sorting instructions. |
| Additional information | : Recycle the ma | terial as far as possible. | |
| SECTION 14: Transport informa | tion | | |
| Department of Transportation (DOT) | | | |
| In accordance with DOT | | | |
| Not regulated for transport | | | |
| TDG | | | |
| No additional information available | | | |
| Transport by sea | | | |
| No additional information available | | | |
| Air transport | | | |
| No additional information available | | | |
| SECTION 15: Regulatory inform | ation | | |
| 15.1. US Federal regulations | | | |
| All components of this product are listed, Substances Control Act (TSCA) inventor | | on the United States Environment | tal Protection Agency Toxic |
| 1-(3-Fluorophenyl)piperazine | | CAS No 3801-89-6 | 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

Full text of H-phrases:

| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
|---------------|---|
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |

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| NFPA health hazard | : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given. |
|--------------------|---|
| NFPA fire hazard | : 0 - Materials that will not burn. |
| NFPA reactivity | : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water. |
| HMIS III Rating | |
| Health | : 2 Moderate Hazard - Temporary or minor injury may occur |
| Flammability | : 0 Minimal Hazard - Materials that will not burn |
| 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)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.