

1M Piperazine, pH 4.68

Section 1. Identification

Product Identifier

Catalog Number: P9100

Recommended use of the chemical and restrictions on use
For research use only. Not intended for human or animal diagnostic or therapeutic uses

Manufacture/Supplier Details: Alpha Teknova, Inc.
2290 Bert Dr.
Hollister, CA 95023
Telephone Number: 831-637-1100

Emergency Telephone Numbers

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2. Hazard Identification

Classification of the substance/mixture: Is a hazardous substance or mixture.

GHS Label elements, including precautionary statements

The substance is classified and labeled according to the Globally Harmonized System (GHS).
Is a hazardous substance or mixture.



Pictogram:

1M Piperazine, pH 4.68

Hazard statements: Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child. Harmful to aquatic life.

Signal word: Danger

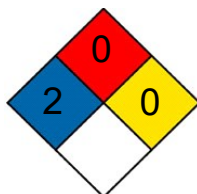
Do not handle until all safety precautions have been read and understood. Do not breathe dust or mist. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. If skin irritation or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Precautionary Statements:

HMIS rating (Scale 0-4):

HEALTH	2
FIRE	0
REACTIVITY	0

NFPA Rating:



Hazards not otherwise classified: None

Section 3. Composition/Information On Ingredients

Chemical Name	Identifiers	Hazardous	Approximate Percentage %
Piperazine	CAS: 110-85-0	hazardous	8.61%
Hydrochloric Acid	CAS: 7647-01-0	nonhazardous	to pH
Water	CAS: N/A	nonhazardous	-

Chemical Characterization: Mixture

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 4. First-Aid Measures

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Description of necessary measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
Skin:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops or persists
Eye:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Ingestion:	Do not induce vomiting. Get medical attention if adverse health effects develop or persist.

Most important symptoms/effects, acute and delayed

No further relevant information available

Indication of any immediate medical attention and special treatment needed

All treatment should be based on observed sign and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5. Fire Fighting Measures

Extinguishing media: Suitable extinguishing media:	This is a nonflammable solution Use an extinguishing agent suitable for the surrounding fire.
Unsuitable Extinguishing:	None known
Special hazards arising from the substance or mixture Unusual fire and explosion hazards: Hazardous Combustions products:	No specific fire or explosion hazard None known
Special protective equipment and precautions for the fire-fighters	No special measures required

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch or walk through spilled material. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental precautions

Avoid run off to waterways and sewers.

Methods and materials for containment and cleaning up

Absorb with liquid-binding material.

Dispose contaminated material as waste according to item 13.

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Section 7. Handling And Storage

Precautions for safe handling:

Avoid contact with skin and eyes.

Conditions for safe storage, including and incompatibilities
Storage:

Keep labeled container tightly closed and upright.

Incompatible materials or Ignition sources:

Keep away from strong oxidizers.

Section 8. Exposure Controls/Personal Protection

Control parameters

Occupational exposure Limit values:

Contains no substances with occupational exposure limit values.

Appropriate engineering controls:

General industrial hygiene practice.

Personal protective equipment

Eye protection:

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand Protection:

Protective gloves. The glove material has to be impermeable and resistant to the product/the substance/ the preparation.

Respiratory Protection:

None required under normal conditions of use

Section 9. Physical And Chemical Properties

Appearance	: liquid
Odor	: none
Odor Threshold	: no data available
pH	: no data available
Melting point/freezing point	: no data available
Initial boiling point & boiling range	: no data available
Flash point	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Partition coefficient	: no data available
Vapor pressure	: no data available
Vapor density	: no data available
Relative density (water)	: no data available
Solubility	: Soluble in water
Upper/lower flammability or explosive limits	: no data available
Auto-ignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity	: no data available
Other information:	None

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Section 10. Stability And Reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Under normal conditions of storage and used, hazardous reactions should not occur.
Conditions to avoid	No specific data
Incompatible materials	No specific data
Hazardous decomposition products:	Under normal conditions of storage and used, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Product/Ingredient Name	CAS	Result	Species	Dose	Exposure
1M Piperazine, pH 4.68	-	-	-	-	-

Irritation/Corrosion

Product/Ingredient Name	Result	Species	Score	Exposure/Observation
1M Piperazine, pH 4.68	-	-	-	-

Sensitization: Not available

Mutagenicity: Not available

Carcinogenicity

Product/Ingredient Name	OSHA	IARC	NTP
1M Piperazine, pH 4.68	None of the ingredients listed	None of the ingredients listed	None of the ingredients listed

Reproductive toxicity: Not available

Teratogenicity: Not available

Specific target organ toxicity- single exposure: Not available

Specific target organ toxicity- repeated exposure: Not available

Aspiration Hazard: Not available

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Information on the likely routes of exposure

Routes of entry anticipated: Oral

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data
Inhalation: No specific data
Skin contact: No specific data
Ingestion: No specific data
Aspiration Hazard No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure

No known significant effects or critical hazards.

Numerical measures of toxicity

Not available

Section 12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure
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Persistence and degradability: Not available

Bioaccumulative potential Not available

Mobility in soil Not available

Other adverse effects Not available

Aspiration Hazard No known significant effects or critical hazards.

Section 13. Disposal Considerations

Waste treatment methods

Product waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

Packaging waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

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Section 14. Transport Information

	UN Number	UN proper shipping name	Transport hazard class(es)	Packaging group	Environmental Hazards
DOT	2579	Piperazine	8	III	none
IMDG	2579	Piperazine	8	III	none
IATA	2579	Piperazine	8	III	none

Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

This product is provided only in non-bulk containers

Special Precautions for user

None specified

Section 15. Regulatory Information

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Safety health and environmental regulations/ legislation specific for the substance or mixture

Sara	:	Not applicable
Section 355 (Extremely hazardous substances)	:	Substance is not listed
Section 313 (Specific toxic chemical listings)	:	Substance is not listed
SARA 311/312 Hazards		
No SARA Hazards		
TSCA (Toxic substances control act)	:	Substance is not listed
Proposition 65:		
Chemicals known to cause cancer	:	Substance is not listed
Chemicals known to cause reproductive toxicity or females	:	Substance is not listed
Chemicals known to cause reproductive toxicity for males	:	Substance is not listed
Chemicals known to cause developmental toxicity	:	Substance is not listed
Carcinogenic categories		
EPA (Environmental protection agency)	:	Substance is not listed
TLV (Threshold limit value established by ACGIH)	:	Substance is not listed
NIOSH-CA (National institute for occupational safety and health)	:	Substance is not listed
OSHA-CA (occupational safety & health administration)	:	Substance is not listed
GHS label elements	:	The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms	:	
Decomposition temperature	:	Not applicable
Viscosity	:	Not applicable
Signal Word	:	None
Hazard-determining components of labeling	:	Not applicable
Hazard statements	:	Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child. Harmful to aquatic life.
Precautionary statements	:	Do not handle until all safety precautions have been read and understood. Do not breathe the dust or mist. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. If skin irritation or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/

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container to an approved waste disposal plant.

National regulations

: Substance is not listed

State right to know

: Substance is not listed

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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Section 16. Other Information

Disclaimer/Statement of Liability: The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Teknova, inc. Shall not be held liable for any damage resulting from handling or from contact with the above product.
Teknova, inc.

Key to abbreviations: NDA= No data available