

SAFETY DATA SHEET

Preparation Date: No data available

Revision Date: 06/22/2015

Revision Number: G1

Product identifier

Product code: P1079
Product Name: PHENYLHYDRAZINE, REAGENT

Other means of identification

Synonyms: No information available
CAS #: 100-63-0
RTECS # MV8925000
Cl#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1B
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2
Flammable liquids	Category 4

Label elements

Danger

Hazard statements

Toxic if swallowed
Toxic in contact with skin
Toxic if inhaled
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing genetic defects
Suspected of causing cancer
Combustible liquid



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep cool
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see .? on this label)
Specific treatment (see .? on this label)
In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Phenylhydrazine 100-63-0	100-63-0	100	*

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately. Toxic in contact with skin.

Eye Contact:

Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Toxic if swallowed.

Most important symptoms and effects, both acute and delayed

Symptoms

Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. Suspected of causing cancer. Suspected of causing genetic defects. Toxic by inhalation, in contact with skin and if swallowed.

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Carbon dioxide (CO₂). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical**Hazardous Combustion Products:**

Carbon Oxides; Nitrogen oxides

Specific hazards:

Combustible material
May be ignited by heat, sparks or flames
Container explosion may occur under fire conditions or when heated
When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards
Fire may produce irritating, corrosive and/or toxic gases

Special Protective Actions for Firefighters**Specific Methods:**

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up**Methods for containment**

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE**Precautions for safe handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials. Oxygen sensitive. Sensitive to light. Store in light-resistant containers.

Incompatible Materials:

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Phenylhydrazine 100-63-0	5 ppm TWA 22 mg/m ³ TWA	0.14 ppm Ceiling 2 hr 0.6 mg/m ³ Ceiling 2 hr	0.1 ppm TWA	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Phenylhydrazine 100-63-0	0.1 ppm TWA 0.4 mg/m ³ TWA	0.1 ppm TWA	0.1 ppm TWA	0.1 ppm TWAEV 0.44 mg/m ³ TWAEV

Australia and Mexico

Components	Australia	Mexico
Phenylhydrazine 100-63-0	probable carcinogen	5 ppm TWA 20 mg/m ³ TWA 10 ppm STEL 45 mg/m ³ STEL

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles Safety glasses with side-shields
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: Liquid	Appearance: No information available	Color: No information available
Odor: No information available	Taste: No information available	Molecular/Formula weight: 108.14
Formula: C ₆ H ₈ N ₂	Flammability: Combustible	Flash point (°C): No data available
Flashpoint (°C/°F): 89°C/192.2°F	Flash Point Tested according to: Closed cup	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Autoignition Temperature (°C/°F): 174°C/345.2°F	pH: No information available
Melting point/range(°C/°F): 19.35°C/66.8°F	Boiling point/range(°C/°F): 238°C/460.4°F	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Specific gravity: 1.099	Vapor pressure @ 20°C (kPa): 0.1 mmHg
Density (g/cm³): No information available	Evaporation rate: No information available	Vapor density: 3.7
VOC content (g/L): No information available	Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available
Viscosity: No information available	Miscibility: No information available	Solubility: Easily soluble in cold water

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability:

Sensitive to light. Exposure to light accelerates decomposition.

Possibility of Hazardous Reactions:

Hazardous polymerization does not occur

Conditions to avoid:

Heat. Ignition sources. Incompatible materials. Exposure to light.

Incompatible Materials:

No information available

Hazardous decomposition products:

Carbon oxides. Nitrogen oxides (NO_x).

Other Information

Corrosivity:

No information available

Special Remarks on Corrosivity:

No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Eyes. Ingestion. Inhalation. Skin.

Product code: P1079

Product name: PHENYLHYDRAZINE,
REAGENT

6 / 12

Acute Toxicity

Component Information

Phenylhydrazine - 100-63-0

LD50/oral/rat = = 188 mg/kg Oral LD50 Rat
LD50/oral/mouse = 175 mg/kg Oral LD50 Mouse
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = 2610 mg/m³ Inhalation LC50 Rat
LC50/inhalation/mouse = 2120 mg/m³ Inhalation LC50 Mouse
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 188mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 175mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 2610mg/m³
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = 2120 mg/m³
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Toxic in contact with skin. Causes skin irritation. May cause allergic skin reaction.

Eye Contact: Causes serious eye irritation.

Inhalation Toxic by inhalation.
Ingestion Toxic if swallowed.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available

Sensitization: May cause sensitization by skin contact

Mutagenic Effects: May affect genetic material

Carcinogenic effects: Suspected of causing cancer.

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Phenylhydrazine	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Phenylhydrazine - 100-63-0

Freshwater Fish Species Data: 0.16 - 0.25 mg/L LC50 Brachydanio rerio 96 h static 1

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Phenylhydrazine	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk:
Packing Group: II
ERG No: 153
Marine Pollutant: No data available
DOT RQ (lbs): No information available

Symbol(s):

TDG (Canada)

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

ADR

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Packing Group: II
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Classification Code: No information available
Description: No information available

ICAO

Product code: P1079

Product name: PHENYLHYDRAZINE,
REAGENT

9 / 12

14. TRANSPORT INFORMATION

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA

UN-No: UN2572
Proper Shipping Name: Phenylhydrazine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Phenylhydrazine</i>	Present	Present KE-28379	Present	Present (3)-470	Present	Present	Present 202-873-5

U.S. Regulations

Phenylhydrazine

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1500
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Phenylhydrazine</i>	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Phenylhydrazine</i>	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Phenylhydrazine</i>	Not Applicable	03/11/199406/30/1998

Canada

WHMIS hazard class:

B3 Combustible liquid
D1A Very toxic materials
D2A Very toxic materials
E Corrosive material

Phenylhydrazine

B3 D1A E

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Phenylhydrazine	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Phenylhydrazine	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Phenylhydrazine	Not listed	Not listed

EU Classification

R-phrase(s)

R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.
R45 - May cause cancer.
R48/25 - Toxic: danger of serious damage to health by prolonged exposure if swallowed.

S -phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
Phenylhydrazine	T; R23/24/25-48/23/24/25 Xi; R36/38 R43 Carc.Cat.2; R45 N; R50 Muta.Cat.3; R68	No information	S53 S45 S61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive.
T - Toxic

16. OTHER INFORMATION

Revision Date: 06/22/2015
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet