

HENAN LIHAO CHEM PLANT LIMITED

NO28,HUANGHEROAD,JINSHUIDISTRICT,ZHENGZHOU,HENAN , CHINA

TEL:+86-371-88812595 ; FAX:+86-371-88812595

MATERIAL SAFETY DATA SHEET

For HYDRAZINE HYDRATE 55%

Date of Issue: 2020-05

Product Description: HYDRAZINE HYDRATE 55%

1. Product and Manufacturer Identification

Description: Hydrazine Hydrate, Diamid Hydrate.

Chemical Formula: $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$ Molecular Weight: 50.56

CAS No.: 10217-52-4

Dangerous Class: 8.2, Corrosive product,

Chemical Classification: Aliphatic Amine

2. Main Composition and Characteristics

Ingredient	CAS No.	Percent	Hazardous
Hydrazine	10217-52-4	35.2%	Yes

3. Health Effect and Hazardous Nature

a) Effecting Channels:

Sucked, swallowed and absorbed through skin.

b) Health Effect

Vapor Sucked, swallowed and absorbed through skin.

Health hazardous: Swallowing breathing of the vapor may harmful to nose and upper breathing tube of human being, resulting in sick feeling and nervous problems. Vapor may be severe eye irritation with swelling, burning, redness and discharge. It may cause permanent blindness for the worst condition. It may also cause allergic skin reaction, such as burning if contacting with skin. There exists risk of liver hazard if handling for long period with this product.

C) Environmental Effect: Harmful to environment and pollution to water body.

D) Flash point: 72.8 °C

E) Explosion low limit: 3.5%

F) Explosion: No records.

4. First Aid Measures

a) Skin contact: Remove polluted clothing and flush with large quantity of clean water for at least 15 minutes. Get medical attention immediately.

b) Eye Contact: Lift eye lips and flush with large quantity of clean water or medical brine for at least 15 minutes. Get medical attention immediately.

c) Inhalation: Remove to fresh air. If no breathing appears, give artificial respiration. If hard breathing occurs, give oxygen. Get medical attention immediately.

5. Fire Fighting Measures

It burns with flame or high temperature, strong reduction. Strong reaction mixing with oxidant, Mercuric oxide, Metallic sodium, stannous oxide, even causing fire.

Hazardous matter generated from firing: NOx.

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Fire Distinguishing Media: Mist of water spray, carbon dioxide, dry powder fire extinguisher, alcohol-resistant foam.

6. Accidental Release Measures

To withdraw all people in the area to safety places and restrict entrance. Isolate any possible fire and ignition sources. Handling people must wear acid resistant working suits and self-contained breathing apparatus with full face mask operated in positive pressure.

- Small Leakage: To cover the leaked H/H with sands or other non-combustible materials or to flush with large quantity of water to dilute.
- Large Leakage: To build a causeway or pit to stop from diffusion and to transfer to effluent treating by tank truck or special collectors.

7. Handling and Storage

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible material as well as oxide and acidic materials, and out of direct sunlight. Wear special protection equipment for maintenance break-in or where exposures may exceed established exposure levels. Handle with care to avoid package breaking. It is forbidden to stop during transportation.

8. Contact Control and Personal Protection Measures

Max Vapor Allowance in Working Environment: MAC(mg.m3) 0.13. To test by Spectrophotometry and gas chromatography. Working environment shall be isolated and ventilated.

- Breathing Protection: If the exposure limit is exceeded, wear a independent supplied air breather, full –face mask or self-contained breathing apparatus.
- Eye Protection: Protected by full faced apparatus as Breathing Protections.
- Body Protection: Wear alkali resistant and acid resistant clothing to prevent skin contact.

9. Physical and Chemical Properties

Melting Point: -40℃

Boiling Point: 118.5℃

Flash Point: 72.78℃

Explosion Low Limit: 3.5%(V/V)

Relative Density (Water=1): 1.03

Saturated Vapor Pressure(KPa) 0.67 at 25℃

Solubility: Miscible in water and alcohol, insoluble in chloroform and ethyl ester.

10. Stability and Reaction

- Stability: Stable
- Hazardous Polymerization: No.
- Conditions to avoid: Strong alkaline and acid, Cu, zinc and Oxidant. Heat and light shall be avoided.
- Decomposition Product: Nitrogen oxides

11. Toxicological Information

Oral rat LD50: 129mg/kg

LC50: No records

12. Ecological Information

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This product is hazardous to environment, especially to water sources.

Vapor is irritative to nose and upper respiratory system.

13. Disposal Consideration

Refer to local disposal regulations before action. Waste to be mixed with combustibles to burn to destroy.

Nitrogen oxides exhausted from furnace to be remove by washing and high temperature.

14. Transportation Information

UN Code: 2030

Package Classification: I

Package Identification: Corrosive and toxic.

Packaging: To be packed in small opening Glassware, plastic containers.

15. Regulation Information

Safety Regulation (Issued on 26 Jan, 2002 by The State Council of P.R.China), Detailed Regulation for Dangerous Products [sued by Chemical Ministry of China by Document No. (1997) 677]and Regulation For Dangerous Chemicals in Working area [issued by the Labor Ministry of china By document No.(1996)423] must be respected for using, production, storing, transportation loading&unloading.

16. Other information

Prepared by Hu ChenYi

Issued by Environment and Safety Department

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