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正本/ORIGIN

编号: TCH25005075
No: TCH25005075
日期: 2025-03-03
Date: 2025-03-03

ZAIQ-RF(HH)-01-19

Safety Data Sheet

扫描查看在线报告



Applicant name: Zhejiang Jinhua New Material Co., Ltd.

Product name: Hydroxylamine 50% Solution

Date of issue: 2025-03-03

Edit institution: Technology Center of Hangzhou Customs District

Approver:



Note: 1. Unless other wise stated, this test report is only responsible for the sample(s).
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声 明

DECLARATION

1. 本报告中检测结果仅对样品负责。

The result in this test report is only valid for the tested samples.

2. 本报告无授权人签字、未加盖本机构报告专用章无效。

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This report shall be used in integrity. This organization will not be responsible for any misleading caused by the content of this report.

1. Identification of substance

Product Name	Hydroxylamine 50% Solution
Other Name	None
Chemical Name	None
Recommended Use	Used as a reducing agent in organic synthesis.
Manufacturer	Zhejiang Jinhua New Material Co., Ltd.
Address	A-25-5 High-Tech Industrial Park Sino-Russian Zone, Quzhou, Zhejiang, China / 324004
Phone Number	None
Fax Number	None
WEB or E-mail	None
Emergency Phone Number	Call your nearest poison control centre

2. Hazards identification

GHS classification	Corrosive to metals 1 Acute toxicity-oral 4 Acute toxicity-dermal 4 Skin corrosion/irritation 2 Serious eye damage/eye irritation 1 Sensitisation-skin 1 Carcinogenicity 2 Specific target organ toxicity, single exposure 3 Specific target organ toxicity, repeated exposure 2 Hazardous to the aquatic environment, acute hazard 1
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GHS Pictograms



Signal words	Danger
Hazard statements	H290:May be corrosive to metals H302:Harmful if swallowed H312:Harmful in contact with skin H315:Causes skin irritation H318:Causes serious eye damage H317:May cause an allergic skin reaction H351:Suspected of causing cancer H335:May cause respiratory irritation H373:May cause damage to organs through prolonged or repeated exposure H400:Very toxic to aquatic life
Precautionary Statement	P203:Obtain, read and follow all safety instructions before use.
Prevention	P234:Keep only in original packaging.

Precautionary Statement
Response

P260:Do not breathe dust/fume/gas/mist/vapours/spray.
P261:Avoid breathing dust/fume/gas/mist/vapours/spray.
P264:Wash hands [and...] thoroughly after handing.
P264+P265:Wash hands [and...] thoroughly after handing. Do not touch eyes.
P270:Do not eat, drink or smoke when using this product.
P271:Use only outdoors or with adequate ventilation.
P272:Contaminated work clothing should not be allowed out of the work place.
P273:Avoid release to the environment.
P280:Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P301+P317:IF SWALLOWED: Get medical help.
P302+P352:IF ON SKIN: Wash with plenty of water/...
P304+P340:IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338:IF IN EYES:Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317:Get medical help.
P318:IF exposed or concerned: Get medical advice.
P319:Get medical help if you feel unwell.
P321:Specific treatment (see the supplemental first aid instruction).
P330:Rinse mouth.
P332+P317:If skin irritation occurs:Get medical help.
P333+P317:If skin irritation or rash occurs: Get medical help.
P362+P364:Take off contaminated clothing and wash it before reuse.
P390:Absorb spillage to prevent material damage.
P391:Collect spillage.

Precautionary Statement
Storage

P403+P233:Store in a well-ventilated place. Keep container tightly closed.
P405:Store locked up.
P406:Store in corrosive resistant/...container with a resistant inner liner.

Precautionary Statement
Disposal

P501:Dispose of contents/container in according with local regulation.

Other hazards which do
not result in classification

Not available.

3. Composition/information on ingredients

☐ **Substances**

☒ **Mixtures**

Component Information

Component	CAS number	EINECS number	Mass(%wt)
Hydroxylamine	7803-49-8	232-259-2	50
Water	7732-18-5	231-791-2	50

Note:1. Unless a component presents a severe hazard, it does not need to be considered in the SDS if the concentration is less than 1%.

4.First-aid measures

NOTE TO PHYSICIAN	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.
After inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get immediate medical attention.
After skin contact	Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. If irritation persists, get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
After eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.
After ingestion	Rinse mouth. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Loosen tight clothing such as a collar, tie, belt or waistband. Do not use mouth-to-mouth method if victim ingested the substance. Seek immediate medical attention.
Most important symptoms/effects, acute and delayed	Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

5. Fire-fighting measures

Suitable extinguishing agents	Dry powder, water spray, chemical foam or alcohol-resistant foam, carbon dioxide.
Special hazards caused by the material, its products of combustion or flue gases	When heated, it decomposes violently, posing a risk of explosion and poisoning. This substance is a weak base. Reacts rapidly with oxidants, metals such as zinc powder, some metal oxides, copper (II) sulfate, and phosphorus chlorides. There is a risk of fire and explosion. Etching metals such as aluminum, copper, tin, and zinc. Can be released in case of fire: Nitrogen oxides, ammonia, nitrogen, carbon monoxide, carbon dioxide, irritating and toxic fumes and gases.
Protective equipment for fire-fighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

6. Accidental release measures

Person-related safety precautions	Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.
Measures for environmental protection	Prevent further leakage or spillage if safe to do so. Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting	Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in suitable container. Do not get water inside containers. Clean contaminated surface thoroughly. Massive leakage: build embankments or dig pits to contain them. Spray water mist to reduce evaporation and transfer to a tanker or professional collector with an explosion-proof pump.
Additional information	See Section 7 for information on safe handling. See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7. Handling and storage

Handling

Information for safe handling

Operate in a fume hood.
 Prevent the formation of aerosols.
 Avoid contact with skin, eyes, mucous membranes and clothing.
 In case of insufficient ventilation, wear suitable respiratory equipment.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash hands thoroughly after work.
 Do not eat, drink, or smoke when using this product.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Use explosion-proof electrical/ventilating/lighting /.../equipment.
 Use non-sparking tools.
 Take action to prevent static discharges.

Information about protection against explosions and fires

STORAGE

Requirements to be met by storerooms and containers

Keep in a cool, dry, well-ventilated place.
 Keep tightly closed until used.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Information about storage in one common

Stay away from incompatible substances such as strong oxidants, metals, metal oxides, etc.

storage facility
Further information about storage conditions Storage areas should be equipped with emergency release equipment and suitable containment materials.

8. Exposure controls/personal protection

Limit Values for Exposure

Component	CAS number	ACGIH TLV-TWA	ACGIH TLV-STEL	NIOSH REL-TWA	NIOSH REL-STEL
Hydroxylamine	7803-49-8	N.E.	N.E.	N.E.	N.E.
Water	7732-18-5	N.E.	N.E.	N.E.	N.E.
Appropriate engineering controls	Use adequate ventilation to keep airborne concentrations low. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower facility.				
General protective and hygienic measures	Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.				
Personal protective equipment	Breathing equipment, hands protection, eyes and face protection, body protection.				
Breathing equipment	When workers are facing high concentrations they must use appropriate certified respirators.				
Protection of hands	Wear appropriate chemical resistant gloves.				
Eye/Face protection	Use safety glasses with side shields or safety goggles as mechanical barrier for prolonged exposure.				
Body protection	Full set of anti chemical reagent overalls, flame retardant antistatic protective clothing, choose body protection according to the amount and concentration of the dangerous substance at the work place.				

Note: 1. N.E. not established.

9. Physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	No data available
Melting point/freezing point	8 °C
Boiling point or initial boiling point and boiling range	100 °C (1013 hPa)
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	>100 °C (Closed cup)
Auto-ignition temperature	215 °C

Decomposition temperature	>50 °C to prevent thermal decomposition and avoid overheating. Do not allow evaporation to dry.
pH	10.6 (concentration: 50%, 20 °C)
Kinematic viscosity	No data available
Solubility	Soluble in water, miscible in alcohols, ethers, ketones, hydrocarbons, etc.
Partition coefficient: n-octanol/water (log value)	No data available
Vapour pressure	12 hPa (40 °C)
Density and/or relative density (water=1)	1.03 g/cm ³ (concentration: 10%); 1.12 g/cm ³ (concentration: 50%)
Relative vapour density (air=1)	No data available
Particle characteristics	Not applicable

10. Stability and reactivity

Reactivity	When heated, it decomposes violently, posing a risk of explosion and poisoning.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Reacts rapidly with oxidants, metals such as zinc powder, some metal oxides, copper (II) sulfate, and phosphorus chlorides. There is a risk of fire and explosion. Etching metals such as aluminum, copper, tin, and zinc.
Conditions to avoid (e.g. static discharge, shock or vibration)	Incompatible materials. Heat and flame and spark. The extreme temperatures and direct sunlight. Static discharge.
Incompatible materials	Strong oxidants, metals, metal oxides, etc.
Hazardous decomposition products	May include nitrogen oxides, ammonia, nitrogen, carbon monoxide, carbon dioxide, irritating and toxic fumes and gases.

11. Toxicological information

Routes of Entry:	Dermal contact, eye contact, inhalation, ingestion.
Acute Toxicity	
Hydroxylamine (CAS 7803-49-8)	LD50 (Oral, rat): 600 mg/kg-642 mg/kg LC50 (Inhalation, rat): N/A LD50 (Dermal, rabbit): 1500 mg/kg-2000 mg/kg
Skin corrosion/Irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	Not classified

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure. This substance may have an impact on the blood. May lead to the formation of methemoglobin and subsequent anemia. Tumors have been found in experimental animals, but they may not be related to humans.
Aspiration hazard	Not classified
Chronic Effects	Not classified
Further Information	No data

12. Ecological information

Ecotoxicity	
Aquatic Toxicity	Hydroxylamine (CAS 7803-49-8) Test & Species 96 Hr LC50 Fish: 7.2 mg/L 48 Hr EC50 Daphnia: 1.62 mg/L 72 Hr EC50 Algae: 0.72 mg/L
Persistence and degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	Not available
Additional Information	Very toxic to aquatic life.

13. Disposal considerations

WASTE DISPOSAL INSTRUCTIONS

Contact a qualified professional waste disposal service to dispose of this material.
 Dispose of in accordance with local environmental regulations or local authority requirements.

14. Transport information

The Recommendation of Transport of Dangerous Goods (TDG)	
UN Number	UN 3266
Proper Shipping Name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Hydroxylamine 50% Aqueous Solution)
Class/Division	Class 8 Corrosive Substances
Package Group	PG III
Subsidiary risk	—
labelling pictogram	



Maritime transport IMDG	Being same with TDG Marine pollutant (Yes/No): Yes
Air transport ICAO-TI and	Being same with TDG

IATA-DGR

15. Regulatory information

European/International Regulations

OSHA:	Hazardous by definition of Hazard Communication Standard (29CFR 1910.1200).
EINECS Status:	Hydroxylamine (CAS 7803-49-8) is included in EINECS inventory.
EPA TSCA Status:	Hydroxylamine (CAS 7803-49-8) is included in TSCA inventory.
Canadian DSL/NDSL (Domestic Substances List/ Non-domestic Substances List):	Hydroxylamine (CAS 7803-49-8) is included in NDSL.
HMIS (Hazardous Material Identification System Ratings):	Health: 3 Flammability: 1 Physical hazard: 0 Personal protection: I (4. Severe Hazard; 3. Serious Hazard; 2. Moderate Hazard; 1. Slight Hazard; 0. Minimal Hazard)
WHMIS (Canadian Workplace Hazardous Material Identification System Ratings):	D2A, E, F (Hydroxylamine)
GB 12268-2012 List of dangerous goods	This product is a dangerous goods on the GB 12268-2012 list of dangerous goods.

16. other information

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 in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This Material Safety Data Sheet was based on the "Globally Harmonized System of Classification and Labelling of Chemicals", "Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations", "INTERNATIONAL MARITIME DANGEROUS GOODS CODE", "International Air Transport Association Dangerous Goods Regulations", the National Standards and other related dangerous chemicals management laws, regulations and standards, which are periodically updated and changed. To make dangerous goods / hazardous chemicals comply with the relevant requirements of the latest management, regularly update is recommended.

This Material Safety Data Sheet has been compiled in both English and Chinese. For any discrepancies, the Chinese version shall prevail.

Abbreviations and acronyms ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulations Concerning the International Transport of

Dangerous Goods by Rail
IMDG: International Maritime Code for Dangerous Goods
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
EC50: Effective concentration, 50 percent

Edit Date	03.03.2025
Update and Revise	Original edition
Edit Standard	<i>Globally Harmonized System of Classification and Labelling of Chemicals</i> Part 1.5
Revised Institution	Technology Center of Hangzhou Customs District