



Wuhan Xinnuode Chemical Co., Ltd.

According to UN GHS (the 7th revised edition)

Material Safety Data Sheet (MSDS)

Benzophenone hydrazone

Written by: _____

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Inspected by: _____

(Jose)

Approved by: _____

(Grealy)

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Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 1 of 9

Section 1 - Product and Company Identification

1.1. Product Identification:

Product name: Benzophenone hydrazone

Product Model: 25kg/ barrel

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Pharmaceutical intermediates

Use advised against: Not available

1.3. Details of the Manufacturer or applicant

Applicant: Wuhan Xinnuode Chemical Co., Ltd.

Address: No.178, Changgang Road, Jiangnan District, Wuhan

Telephone: +86-27-85823669

Fax: +86-27-63377734

Post code: 420000

E-mail: whxndhg@163.com

1.4. Emergency telephone number

Emergency telephone: +86-27-85823669

Section 2 - Hazard Description

2.1 GHS Classification: Not a hazardous substance or mixture.

2.2. Other hazards: None

Section 3 - Composition / Ingredient Data

3.1. Material

Ingredient	CAS No.	Content%
Benzophenone hydrazone	5350-57-2	100

Section 4 - First Aid Measures

4.1. General advice:

Show this safety data sheet to the doctor in attendance. After receiving the first-aid measure required,

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Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 2 of 9

consult a physician if necessary.

4.2. Skin contact:

Remove contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If chemical burns or skin sustained stimulation, consult a physician immediately.

4.3. Eyes contact:

Check for and remove any contact lenses, do not rubbing eyes with hand. Provide a readily-accessible eyewash facility and quick-drench safety shower. Occasionally lifting the upper and lower eyelids. Immediately flush eyes with running water, disappear until the chemical residues so far. Get medical attention if irritation occurs.

4.4. Inhalation:

Move exposed person to fresh air. Keep person warm and at rest. If not breathing or if breathing is irregular, 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.

4.5. Ingestion:

Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

4.6. Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.7. Immediate / special treatment:

Continue with first aid measures. Treat symptomatically and supportively. Symptoms may be delayed.

Section 5 – Firefighting Measures

5.1. Extinguishing method and extinguishing agent:

The product is non-flammable, as in fire:

Suitable extinguishing agent: Use dry sand, dry chemical or CO₂ foam extinguishing. Use extinguishing media most appropriate for the surrounding fire.

Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 3 of 9

Unsuitable extinguishing agent: None.

5.2. Special hazards arising from the substance or mixture:

Carbon oxides, nitrogen oxides, hydrogen cyanide.

5.3. Advice for fire-fighter:

Firefighters must wear self-contained breathing apparatus, wear full body fire suit, fire extinguishing in the upwind. As far as possible will be transferred to empty containers from the scene. Keep the fire water spray container cooling, until the end of fire.

Section 6 - Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material, avoid slipping. Avoid dust formation, avoid breathing dusts, vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions:

Prevent further leakage or spillage if safe to do so. To prevent leak into the water, the basement and limited space. Prevent entry into the sewage system.

6.3. Collecting, clearing method and disposal material:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Disposal: Contaminated material must be disposed of in accordance with all State and/or Local regulations.

Section 7 - Handling and Storage

7.1. Handling precautions:

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid contact skin. Avoid breathing dust, vapour or mist. Provide appropriate exhaust ventilation at places where dust is formed. Observe good housekeeping procedures and hygiene practices. Wash thoroughly after handling. Handling carefully to prevent packaging and container is damaged. Equipped with corresponding varieties and number of fire equipment and spill

Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 4 of 9

contingency processing equipment.

7.2. Information about protection against explosions and fires:

General rules of fire prevention should be observed. Keep away from open flames, hot surfaces and sources of ignition.

7.3. Precautions for storage:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Keep out of reach of children and pets. Recommended storage temperature 0-6°C, relative humidity: ≤85%.

7.4. Packaging materials:

Recommended-Use original container.

Section 8 - Exposure Controls/ Personal Protection

8.1. Exposure limit:

There is no known exposure limits prescribed by the state.

8.2. Engineering control:

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

8.3. Personal protection:

Respiratory protection:

If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator.

Eye protection:

Wear safety glasses when there is a potential for eye contact.

Skin and body protection:

Suitable protective clothing.

Hands protection:

Protective gloves.

Other protection:

Smoking, eating and drinking water is forbidden in the workplace. After work, shower and change clothes. To maintain good health habits.

Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 5 of 9

Section 9 - Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance:	Crystalline powder, white
Odor:	Characteristic
Melting point / freezing point(°C):	97-99
Flash point(Closed cup, °C):	No data available/Not applicable
Steam pressure:	No data available/Not applicable
Relative density (water=1, 25°C):	0.86g/cm ³
Partition coefficient: n-octanol/water:	No data available/Not applicable
Decomposition temperature(°C):	No data available/Not applicable
pH value:	No data available/Not applicable
Boiling point(°C):	225-230
Explosion limit:	No data available/Not applicable
Vapor density:	No data available/Not applicable
Water soluble:	Partially dissolved
Auto-ignition temperature:	No data available/Not applicable
Flammability (solid, gas):	Non-flammable
Oxidizing properties:	No data available/Not applicable

9.2. Other safety information

No data available/Not applicable

Section 10 - Stability and Reactivity

10.1. Stability:

Stable under normal condition.

10.2. Reactions:

Stable under recommended storage and handling conditions.

10.3. Incompatible materials:

Strong oxidant.

10.4. Conditions to avoid:

Direct sunlight, high temperature and water.

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Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 6 of 9

10.5. Hazardous polymerization:

Will not occurs.

10.6. Hazardous decomposition products:

Nitrogen oxides, hydrogen cyanide.

Section 11 - Toxicological Information

11.1. Acute toxicity:

Ingredient	CAS No.	Toxicity
Benzophenone hydrazone	5350-57-2	No data

11.2. Skin corrosion/irritation:

May cause skin irritation.

11.3. Eye corrosion/irritation:

May cause eyes irritation.

11.4. Respiratory or skin sensitization:

These products are not known to cause human skin or respiratory sensitization.

11.5. Germ cell mutagenicity:

According to the existing data, the product is not classified.

11.6. Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

11.7. Reproductive toxicity:

According to the existing data, the product is not classified.

11.8. Specific target organ toxicity - single exposure:

According to the existing data, the product is not classified.

11.9. Specific target organ toxicity - repeated exposure:

According to the existing data, the product is not classified.

11.10. Aspiration hazard:

According to the existing data, the product is not classified.

Section 12 - Ecological Information

12.1. Ecotoxicity values:

According to the existing data, the product is not classified.

Material Safety Data Sheet

Revision date: April. 18, 2018

Client No.: NM27XND

Version: 1.0

Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 7 of 9

12.2. Persistence and degradability:

No data.

12.3. Bio accumulative potential:

No data.

12.4. Mobility in soil:

No data.

12.5. Other adverse effects:

May slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.

Section 13 - Disposal Considerations

13.1. Non-hazardous waste according to Waste Catalogue Ordinance. Consult state, local or national regulations for proper disposal. The generation of waste should be avoided or minimized wherever possible. Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Refer to Section 7-Handling and Storage and Section 8-Exposure Controls/ Personal Protection for additional handling information and protection of employees.

Section 14 - Transport Information

14.1. UN number

ADR, RID, IMDG, IATA: NOT REGULATED

14.2. UN proper shipping name

ADR, RID, IMDG, IATA: NOT REGULATED

14.3. Transport hazard class(es)

ADR, RID, IMDG, IATA: NOT REGULATED

14.4. Packing group

ADR, RID, IMDG, IATA: NOT REGULATED

14.5. Environmental hazards

IMDG Marine pollutant: No

14.6. Special precautions for user:

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Product name: Benzophenone hydrazone

MSDS No.: E27.170.830.004.XND

Page 8 of 9

Should check whether the container is full, sealed before shipping. Ensure that the product does not collapse, fall, and not damaged in transport process. Avoid rain, polluted, damaged, long-term exposure and upright. Stopover should be far away from fire, heat source and water.

Section 15 - Regulatory Information

15.1. Regulatory information: Reference to the local, national, US, EU, CA and international regulations.

CAS No.	TSCA	EINECS	DSL	IECSC	NZIoC	PICCS	KECI	AICS
5350-57-2	Listed	Listed	Listed	Unlisted	Listed	Listed	Listed	Listed

TSCA: United States Toxic Substances Control Act Inventory

EINECS: European Inventory of Existing Commercial Chemical Substances

DSL: Canadian Domestic Substances List

IECSC: China Inventory of Existing Chemical Substances

PICCS: Philippines Inventory of Chemicals and Chemical Substances

NZIoC: New Zealand Inventory of Chemicals

KECI: Existing and Evaluated Chemical Substances

AICS: List of existing chemical substances in Australia

Section 16 - Other Information

Abbreviations or phrases:

- ACGIH : American Conference of Governmental Industrial Hygienists
- ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
- CAS : Chemical Abstracts Service
- CLP : Classification, labeling and packaging
- EC : Council of Europe
- ECHA : European Chemicals Agency
- EINECS : European Inventory of Existing commercial Chemical Substances
- GHS : Globally Harmonized System of Classification and Lablling of Chemicals
- IARC : International Agency for Research on Cancer
- IATA : International Air Transport Association
- ICAO : International Civil Aviation Organization

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Material Safety Data Sheet

Revision date: April. 18, 2018

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MSDS No.: E27.170.830.004.XND

Page 9 of 9

IMDG	: International Maritime Dangerous Goods Code
IC50	: Inhibitory Concen Triton 50%
LC50	: Lethal Concentration 50%
LD50	: Median Lethal Dose 50%
MAPROL	: International Convention for the Prevention of Pollution from Ships
REACH	: REGULATION concerning the Registration, Evaluation, Authorization and Restriction of Chemicals
RID	: Regulation for rail International transportation of Dangerous goods
STEL	: Short Term Exposure Limit
TWA	: Time Weighted Average
MAC	: Maximum Allowable Concentration
OSHA	: Occupational Safety and Health Administration
NIOSH	: National Institute for Occupational Safety and Health
TLV	: Threshold Limit Value
TLV-TWA	: Threshold Limit Value-Time Weighted Average
TLV- STEL	: Threshold Limit Value-Short term Exposure Limit
PC-TWA	: Permissible Concentration-Time Weighted Average
PC-STEL	: Permissible Concentration-Short Term Exposure Limit
PEL	: Permissible Exposure Limit
OELs	: Occupational Exposure Limits

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