

SAFETY DATA SHEET

Creation Date 20-October-2010

Revision Date 25-August-2023

Revision Number 4

1. Identification

Product Name N'-Hydroxybenzenecarboximidamide

Cat No. : RF01827CB; RF01827DA; RF01827EA; RF01827FL; RF01827ZZ

CAS-No 613-92-3

Synonyms Benzamide oxime; Benzamidoxime; N-Hydroxybenzamide

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet**Company**

Importer/Distributor
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone NumberFor information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887**2. Hazard(s) identification****Classification**

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

| | |
|---|------------|
| Acute oral toxicity | Category 3 |
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

Label Elements**Signal Word**

Danger

Hazard Statements

Toxic if swallowed

Causes skin irritation

Causes serious eye irritation
May cause respiratory irritation

**Precautionary Statements****Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Call a POISON CENTER/ doctor if you feel unwell
Rinse mouth
Take off contaminated clothing and wash it before reuse

Storage

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

Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|-----------------|----------|----------|
| Benzamide oxime | 613-92-3 | >95 |

4. First-aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give 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. Call a physician or poison control center immediately.

Most important symptoms/effects

None reasonably foreseeable.

Notes to Physician

Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Nitrogen oxides (NO_x). Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health
3

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

Storage. Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Acids. Bases. Acid chlorides.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the

process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | Glove comments |
|-----------------------|--------------------------|------------------------|------------------------|
| Natural rubber | See manufacturers | - | Splash protection only |
| Nitrile rubber | recommendations | | |
| Neoprene | | | |
| PVC | | | |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Recommended Filter type: Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

| | |
|---|-------------------------------|
| Physical State | Solid |
| Appearance | White - Off-white |
| Odor | No information available |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | 74 - 77 °C / 165.2 - 170.6 °F |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | No information available |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |

Molecular Formula
Molecular Weight

C7 H8 N2 O
136.15

10. Stability and reactivity

| | |
|----------------------------------|--|
| Reactive Hazard | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. Excess heat. |
| Incompatible Materials | Acids, Bases, Acid chlorides |
| Hazardous Decomposition Products | Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO ₂) |
| Hazardous Polymerization | No information available. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information
Component Information
Toxicologically Synergistic
Products

No information available

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

| | |
|-----------------|--|
| Irritation | Irritating to eyes, respiratory system and skin |
| Sensitization | No information available |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|-----------------|----------|------------|------------|------------|------------|------------|
| Benzamide oxime | 613-92-3 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

| | |
|--------------------------------------|---------------------------|
| Persistence and Degradability | No information available |
| Bioaccumulation/ Accumulation | No information available. |
| Mobility | No information available. |

13. Disposal considerations

| | |
|-------------------------------|---|
| Waste Disposal Methods | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
|-------------------------------|---|

14. Transport information

DOT

| | |
|-----------------------------|------------------------------|
| UN-No | UN2811 |
| Proper Shipping Name | Toxic solid, organic, n.o.s. |
| Technical Name | (BENZAMIDE OXIME) |
| Hazard Class | 6.1 |
| Packing Group | III |

TDG

| | |
|-----------------------------|------------------------------|
| UN-No | UN2811 |
| Proper Shipping Name | Toxic solid, organic, n.o.s. |
| Hazard Class | 6.1 |
| Packing Group | III |

IATA

| | |
|-----------------------------|-------------------------------|
| UN-No | UN2811 |
| Proper Shipping Name | TOXIC SOLID, ORGANIC, N.O.S.* |
| Hazard Class | 6.1 |
| Packing Group | III |

IMDG/IMO

| | |
|-----------------------------|------------------------------|
| UN-No | UN2811 |
| Proper Shipping Name | Toxic solid, organic, n.o.s. |
| Hazard Class | 6.1 |
| Packing Group | III |

15. Regulatory information

International Inventories

| Component | CAS-No | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|-----------------|----------|-----|------|------|---|-----------|--------|-----|
| Benzamide oxime | 613-92-3 | - | - | - | - | 210-361-8 | - | - |

| Component | CAS-No | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|-----------------|----------|-------|------|------|------|------|------|-------|-------|
| Benzamide oxime | 613-92-3 | - | - | - | - | X | - | - | - |

Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Other International Regulations

Authorisation/Restrictions according to EU REACH Not applicable

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

| Component | CAS-No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-----------------|----------|----------------|------------------------------|---------------------------|--|
| Benzamide oxime | 613-92-3 | Not applicable | Not applicable | Not applicable | Not applicable |

| Component | CAS-No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------------|----------|---|--|----------------------------|------------------------------------|
| Benzamide oxime | 613-92-3 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

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Revision Summary This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS