

# Safety Data Sheet

Release 1.0  
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## 1 Identification of the substance

### 1.1 Product identifier

*Identification of the substance* 1,4-Dinitrosopiperazine

*Additional identification* N,N'-Dinitrosopiperazine;NSC 339

*Catalogue Number* FD22439

*REACH No.* A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

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

*Identified uses* other biochemicals

*Restriction on use* not for food or drug use, for laboratory use only

### 1.3 Details of the supplier of the safety data sheet

*Company* Biosynth Ltd  
8&9 Old Station Business Park  
COMPTON RG20 6NE

*Phone* +44 1635 578444

*Mail* customerservice@biosynth.com

### 1.4 Emergency telephone number

*Phone* 24hr/7days: +44 118 338 8269

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## 2 Hazards identification

### 2.1 Classification of the substance or mixture

#### *Physical Hazards*

not classified

#### *Health Hazards*

Respiratory sensitisier (Category 1), H334

Skin irritation (Category 2), H315

Skin sensitisier (Category 1), H317

Eye damage (Category 1), H318

Acute toxicity oral (Category 3), H301

Carcinogenicity (Category 1B), H350

Germ cell mutagenicity (Category 2), H341

#### *Environmental Hazards*

not classified

### 2.2 Label elements

#### *Regulatory List*

EC1272/08 Regulation (EC) 2020/878 (GHS/CLP)

#### *Symbol*

GHS05 corrosion

#### *Pictogram*



GHS06 skull and crossbones

#### *Pictogram*



GHS07      exclamation mark

**Pictogram**



GHS08      health hazard

**Pictogram**



**Signal Word**

Danger      Danger

**Hazard Statement**

H301      Toxic if swallowed.  
H315      Causes skin irritation.  
H317      May cause an allergic skin reaction.  
H318      Causes serious eye damage.  
H334      May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H341      Suspected of causing genetic defects.  
H350      May cause cancer.

**Precautionary Statement**

P261      Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272      Contaminated work clothing should not be allowed out of the workplace.  
P280      Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310      IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+P352      IF ON SKIN: Wash with plenty of soap and water.  
P330      Rinse mouth.  
P501      Dispose of contents / container in accordance with local / regional / national / international regulations.

**2.3 Other hazards**

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

**3 Composition/information on ingredients**

**Substance related information**

*Substance name*      1,4-Dinitrosopiperazine  
*Synonyms*      N,N'-Dinitrosopiperazine;NSC 339  
*Cas No.*      [140-79-4]  
*Formula*      C<sub>4</sub>H<sub>8</sub>N<sub>4</sub>O<sub>2</sub>

**4 First aid measures**

**4.1 Description of first aid measures**

**First Aid: Eye**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

**First Aid: Skin**

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

**First Aid: Ingestion**

Wash out mouth with water provided person is conscious. Call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

**Hints for Physician: Symptoms**

See Section 11 for additional information on health hazards

**4.3 Indication of any immediate medical attention and special treatment needed****First Aid: Inhalation**

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

**Hints for Physician: Treatment**

Treat symptomatically.

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**5 Firefighting measures****5.1 Extinguishing Media****Suitable**

foam, dry extinguishing powder, carbon dioxide (CO2), water spray jet

**5.2 Special hazards arising from the substance or mixture**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Hazards During Fire-Fighting**

toxic fumes

**5.3 Fire-Fighting/Further Advice**

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

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**6 Accidental release measures****6.1 Personal Precautions, protective equipment and emergency procedures**

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

**6.2 Environmental Precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

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

not available

**6.4 Further Accidental Release Measures**

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

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**7 Handling and storage****7.1 Precautions for safe handling****Handling advice**

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

**7.2 Conditions for safe storage, including any incompatibilities****Storage temperature**

store at <-15°C

**Storage condition**

keep dry

**Storage Requirements**

Keep container tightly closed when not in use, since hygroscopic. Warm to Room Temperature before use. Keep away from incompatible substances.

**7.3 Specific end use(s)**

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**8 Exposure controles/personal protection****8.1 Exposure limit values**

Does not contain any substances with occupational exposure limits.

**8.2 Exposure controles****Industrial Hygiene**

Mechanical exhaust required. Safety shower and eye shower.

**8.3 Personal Protective Equipment****Respiratory Protection**

Wear NIOSH/MSHA or European Standard EN 149 approved respirator.

**Hand Protection**

Wear compatible chemical-resistant gloves to prevent skin exposure.

**Eye Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

**Body Protection**

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

**Advice on Safe Handling**

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

**9 Physical and chemical properties****9.1 Information on basic Physical and chemical color properties**

*Form*

powder

**9.2 Other information**

*Molar Mass*

144.13 g/mol

**10 Stability and reactivity****10.1 Reactivity**

No Data Available

**10.2 Chemical stability**

No Data Available

**10.3 Possibility of hazardous reaction**

No Data Available

**10.4 Conditions to Avoid (SDS)**

incompatible materials, moisture

**10.5 Incompatible materials**

strong oxidizers

**10.6 Hazardous decomposition products**

nitrogen oxides (NOx), carbon dioxide (CO2), carbon monoxide

**11 Toxicological information****11.1 Information on toxicological effects****Assessment Carcinogenicity**

Cancer suspect agent

**Other Relevant Toxicity Information**

We are not aware of any toxicology data.

**12 Ecological Information****12.1 Toxicity**

Acute toxicity versus Fishing	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available				
Acute toxicity in aquatic plants	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available				
Acute toxicity versus Daphnia and others aquatic invertebrates	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available				

**12.2 Persistence and degradability**

Remarks : no data available

**12.3 Bioaccumulative potential**

Remarks : no data available

#### 12.4 Mobility in soil

no data available

#### 12.5 Results of PBT and vPvB assessment

no data available

#### 12.6 Other adverse effects

no data available

### 13 Disposal considerations

#### Advice on Disposal and Packaging

##### Advice on Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and Exhaust air. Dispose of waste according to laws applicable.

##### Advice on Packaging

not available

### 14 Transport information

	Road Transport(ADR/GGVS)	Air Transport(IATA)
14.1 UN number	2811	2811
14.2 UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (1,4-Dinitrosopiperazine)	TOXIC SOLID, ORGANIC, N.O.S. (1,4-Dinitrosopiperazine)
14.3 Transport hazard class(es)	6.1	6.1
14.4 Packing group	III	III
14.5 Environmental hazard class(es)	Not Dangerous Goods	Not Dangerous Goods
14.6 Special precautions for user	Passage through tunnels of category E is forbidden.	Not applicable
14.7 Transport in bulk according to Annex 11 of MARPOL and the IBC code	Not applicable	Not applicable

### 15 Other regulations

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixturet

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
1,4-Dinitrosopiperazine	-----	-----	-----

##### Regulatory List

EINECS, TSCA

#### 15.2 Chemical safty assessment

No chemical safety assessment has been carried out.

### 16 Additional information

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