



# 2,3 Dimethyl 2,3 Dinitrobutane

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name:	DMNB
CAS Number:	3964-18-9
EC Number:	223-569-9

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

Identified use: Laboratory chemicals, manufacture of substances

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

<b>Company name:</b>	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
<b>Telephone:</b>	+44 (0) 333 242 0100
<b>Email:</b>	<a href="mailto:info@eastharbourgroup.com">info@eastharbourgroup.com</a>

### 1.4 Emergency telephone number

<b>Emergency telephone:</b>	0800 246 1274
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## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

### 2.2 Label elements

Signal word: DANGER

### 2.3 Other hazards

The most possible adverse effect on human health: Toxic if swallowed. Irritating to eyes, respiratory system and skin.

The most possible adverse effect on environment: Could be dangerous to rodents, birds and aquatic animals. Generally toxic to environment.

## Section 3: Composition/information on ingredients



## 2,3 Dimethyl 2,3 Dinitrobutane

### 3.1 Mixtures

CAS #	Content (W/W)	Ingredients
3964-18-9	98%	2,3 Dimethyl 2,3 Dinitrobutane (DMNB)

Chemical name: 2,3 Dimethyl 2,3 Dinitrobutane (DMNB)

Common name / synonyms: DMNB / Symmetrical Tetra Methyl Dinitroethane

### Section 4: First aid measures

#### 4.1 Description of first aid measures

In case of skin contact: Wash with soap water. Get medical attention

In case of eye contact: Flush with plenty of water. Get medical attention

If swallowed: Rinse mouth with plenty of water and throw out water. Drink large quantity of water and induce vomiting. Get medical attention.

If inhaled: Remove to fresh air. Give oxygen if required. Get medical attention.

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

No information available

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available

### Section 5: Fire-fighting measures

#### 5.1 Fire Fighting Media and Instructions:

Fight fire with water in plenty. Isolate area and immediately evacuate all personnel from the affected area to safe distance using as much protective cover as possible.

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

No information available.

#### 5.3 Advice for firefighters

Use self-contained breathing apparatus and protective clothing for combating fire. Special precautions: no data available

### Section 6: Accidental release measures



## 2,3 Dimethyl 2,3 Dinitrobutane

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Protect eyes with goggles or safety glasses. Use nose mask. Avoid inhalation of dust and direct contact with eyes and skin.

### 6.2 Environmental precautions

Avoid release to open air or ground.

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

Remove the sources of ignition, impact, friction, heat, spark and electric discharge. Wet the material with water, sprinkle sand and sweep up the spill. Dispose off the spill in accordance with local, state or federal regulations. Dispose off the waste, if any in accordance with local, state or federal regulations.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Handle with care.

### 7.2 Conditions for safe storage, including any incompatibilities

Store with compatible material away from all sources of ignition, impact, heat, spark, electric discharge, etc. It is advantageous to keep the material in the original shipping container in cool place.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Confine process operation to one place only.

### 8.2 Exposure controls

Provide good natural ventilation or exhaust fans.

### 8.3 Personal protective equipment

Eye/face protection: Safety glasses or goggles.

Skin/body protection: Cotton lab coat, conductive soled footwear. Impervious gloves are recommended.

Respiratory protection: Nose mask. General good ventilation is recommended

Work/Hygiene Practice: No eating or drinking in exposed area. Wash hands with soap and plenty of water after handling. Change cloths daily and take daily shower.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties



## 2,3 Dimethyl 2,3 Dinitrobutane

<b>Appearance</b>	White crystalline powder
<b>Physical State</b>	Powder
<b>Odor</b>	Odourless
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	0.247Pa
<b>Boiling Point/Range</b>	N/A 210-214 C
<b>Flash Point</b>	N/A
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Explosion Limits</b>	No information available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Specific Gravity / Density</b>	No information available
<b>Bulk Density</b>	No information available
<b>Water Solubility</b>	Practically insoluble
<b>Solubility in other solvents</b>	No information available
<b>Partition Coefficient</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available

### Section 10: Stability and Reactivity

<b>10.1 Reactivity</b>	Avoid subjecting to heat, friction, spark, impact and electrostatic discharge.
<b>10.2 Chemical Stability</b>	Stable at normal temperatures and storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	Polymerisation may not occur
<b>10.4 Conditions to avoid</b>	Avoid high temperatures
<b>10.5 Incompatible materials</b>	Acids, acid vapours and strong oxidants
<b>10.6 Hazardous decomposition products</b>	Can give off toxic oxides of nitrogen and carbon above 250 C.

### Section 11: Toxicological Information



## 2,3 Dimethyl 2,3 Dinitrobutane

### Product Information

#### 11.1 Toxicological effects

DMNB is not expected to produce any significant health hazard. No report on human carcinogenicity, mutagenicity, reproductive toxicity and teratogenicity is listed.

#### Route of Entry:

Eyes: Unlikely

Inhalation: Unlikely

Skin: Likely (Avoid skin contact)

Ingestion: Likely as a result of improper personal hygiene

#### 11.2 Acute Toxicity

Slight acute effects of over-exposure and not fully known chronic effects.

#### 11.3 Delayed and immediate effects and also chronic effects from short- and long-term exposure

Not expected or known to present any significant health effects.

#### 11.4 Numerical measures of toxicity (such as acute toxicity estimates)

No information available

#### 11.5 Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA

No information available.

## Section 12: Ecological Information

### 12.1 Toxicity

#### Ecotoxicity effects

It is reported to be toxic to aquatic animals.

May cause long- term adverse effect in aquatic environment.

96 Hrs. LC50 in Bluegill Sunfish under static conditions is reported as 8.8 mg/L.

96 Hrs. no mortality concentration is reported as 4.3mg/L

96 Hrs. LC50 in Rainbow Trout under static conditions is reported as 4.6 mg/L. 96 Hrs. no mortality concentration is reported as 3.6mg/L Reversal of toxic signs is reported.

Toxicity to rat: LD50 – oral – 87 mgs/kg

Toxicity to rabbit: LD50 – skin – 2000 mgs/kg

Toxicity to rat: LD50 – skin – 2000 mgs/k

## Section 13: Disposal considerations

Incinerate the dangerous waste, if any, in accordance with regulations.



# 2,3 Dimethyl 2,3 Dinitrobutane

## Section 14: Transport Information

DOT/IMO Proper Shipping Name	Toxic Solid, Organic, N.O.S. 2,3 Dimethyl 2,3 Dinitrobutane (DMNB)
Hazard Class/Div.	6.1
UN Number	UN 2811
DOT/IMO Label	Poison
Packing Group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

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3964-18-9	

### New Jersey Right To Know Components

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### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.