

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name: Nitrobenzene  
CAS number: 98-95-3  
Synonyms: None

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

Identified Uses: No information available.

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

Company : Lab Alley, LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669  
U.S.A.

Telephone : 512-668-9918  
Fax : 512-886-4008

#### 1.4 Emergency telephone

**Emergency Phone #** : US & Canada: 1-800-535-5053      INFOTRAC  
International 1-352-323-3500      INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity - Oral (Category 4)  
Acute toxicity - Dermal (Category 3)  
Acute toxicity - Inhalation (Gases, Vapors, Dusts/Mists) (Category 3)  
Serious eye damage/eye irritation (Category 2B)  
Carcinogenicity (Category 2)  
Reproductive toxicity (Category 2)  
Specific target organ toxicity (single exposure) (Category 3)  
Specific target organ toxicity (repeated exposure) (Category 1)  
Flammable liquids (Category 4)

## 2.2 GHS Label elements, including precautionary statements

Pictogram:



Signal Word:

**Danger**

Hazard statement(s):

Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes eye irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Combustible liquid.

Precautionary statement(s):

**Prevention** - Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. 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. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from flames and hot surfaces. - No smoking. Keep cool. **Response** - If exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish.

### Hazards not otherwise classified

Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

| Chemical name | CAS number | %   |
|---------------|------------|-----|
| Nitrobenzene  | 98-95-3    | 100 |

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

**General advice:**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.

**If inhaled:**

Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing has stopped, give artificial respiration. Get medical attention immediately. Immediate medical attention is required. 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. If breathing is difficult, (trained personnel should) give oxygen.

- In case of skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
- In case of eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediately medical advice/attention.
- In case of ingestion:** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

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

Coughing and/or wheezing. Difficulty in breathing.

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

Treat symptomatically.

# SECTION 5: Firefighting measures

## 5.1 Extinguishing media

### Suitable (and unsuitable) extinguishing media

Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient. Do not scatter spilled material with high pressure water streams

## 5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

## 5.3 Special protective equipment and precautions for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 5.4 Further information

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. 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. Do not breathe vapor or mist. Use personal protective equipment as required. See section 8 for more information.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not breathe vapor or mist. Keep people away from and upwind of spill/leak.

## 6.2 Environmental precautions

No data available.

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

Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal. Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### 6.4 Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation.

#### Hygiene measures

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapor or mist.

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

#### Storage conditions

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight. Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight. Use local and general ventilation. Ground/bond container and receiving equipment. Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

## SECTION 8. Exposure controls/personal protection

### 8.1 Occupational exposure limits

| Chemical name           | ACGIH TLV         | OSHA PEL                             | NIOSH IDLH |
|-------------------------|-------------------|--------------------------------------|------------|
| Nitrobenzene<br>98-95-3 | No data available | 1 ppm TWA<br>5 mg/m <sup>3</sup> TWA | -          |

### 8.2 Exposure controls

#### Appropriate engineering controls

Showers. Eyewash stations. Ventilation systems.

## Personal protective equipment

### Eye/face protection

Tight sealing safety goggles.

### Skin and body protection

Wear suitable gloves. Impervious gloves. Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

### Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

### Control of environmental exposure

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |                                       |
|---|---------------------------------------|
| <b>Physical State</b>                         | Liquid.                               |
| <b>Appearance</b>                             | Clear oily. Colorless to pail yellow. |
| <b>Odor</b>                                   | Strong.                               |
| <b>Odor Thresh</b>                            | No information available.             |
| <b>pH</b>                                     | No data available.                    |
| <b>Melting Point/Range</b>                    | 6 °C / 42.8 °F                        |
| <b>Boiling Point/Range</b>                    | 211 °C / 411.8 °F                     |
| <b>Flash Point</b>                            | 88 °C / 190.4 °F                      |
| <b>Evaporation Rate</b>                       | No data available.                    |
| <b>Flammability (solid, gas)</b>              | No data available.                    |
| <b>Flammability or explosive limit</b>        |                                       |
|   | <b>Upper</b> : NA                     |
|   | <b>Lower</b> : 1.8%                   |
| <b>Vapor Pressure</b>                         | .02                                   |
| <b>Vapor Density</b>                          | No data available.                    |
| <b>Density</b>                                | 1.2                                   |
| <b>Solubility</b>                             | Very slightly soluble in cold water.  |
| <b>Partition coefficient; n-octanol/water</b> | No data available.                    |
| <b>Autoignition Temp</b>                      | No data available.                    |
| <b>Decomposition Temp</b>                     | No data available.                    |
| <b>Viscosity</b>                              | No data available.                    |
| <b>Molecular Formula</b>                      | C6H5NO2                               |
| <b>Molecular Weight</b>                       | No data available.                    |
| <b>VOC Content(%)</b>                         | No data available.                    |
| <b>Oxidizing properties</b>                   | No data available.                    |

## 9.2 Other safety information

None.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None under normal conditions.

### 10.4 Conditions to avoid

Heat, flames and sparks. Excessive heat.

### 10.5 Incompatible materials

None known based on information supplied.

### 10.6 Hazardous decomposition products

None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Information on likely routes of exposure

##### Product Information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components).                  |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. Causes eye irritation. May cause redness, itching, and pain. |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Toxic in contact with skin. (based on components).           |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).                 |

#### Symptoms related to the physical, chemical and toxicological characteristics

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | May cause redness and tearing of the eyes. Coughing and/ or wheezing. Difficulty in breathing. |
|-----------------|--|

### Acute toxicity

No information available.

| Chemical name           | Oral LD50           | Dermal LD50            | Inhalation LC50          |
|-------------------------|---------------------|------------------------|--------------------------|
| Nitrobenzene<br>98-95-3 | = 349 mg/kg ( Rat ) | = 760 mg/kg ( Rabbit ) | = 2.847 mg/L ( Rat ) 4 h |

### Skin corrosion/irritation

May cause skin irritation.

### Serious eye damage/eye irritation

Classification based on data available for ingredients. Irritating to eyes.

### Respiratory or skin sensitization

No information available.

### Germ cell mutagenicity

No information available.

### Carcinogenicity

Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name           | ACGIH | IARC                | NTP | OSHA |
|-------------------------|-------|---------------------|-----|------|
| Nitrobenzene<br>98-95-3 | -     | Monograph 65 [1996] | -   | -    |

### Reproductive toxicity

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity - single exposure

No information available.

### Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Target organ effects - liver, kidney, Eyes, Skin, blood, Central Vascular System (CVS), Reproductive System.

### Aspiration hazard

No information available.

### Chronic effects

No information available.

## 11.2 Additional information

None.

## SECTION 12. Ecological information

### 12.1 Toxicity Harmful to aquatic life with long lasting effects.

| Chemical name           | Algae/aquatic plants  | Fish  | Toxicity to microorganisms | Crustacea   |
|-------------------------|---|---|----------------------------|---|
| Nitrobenzene<br>98-95-3 | EC50: 3.45 - 38.13mg/L (96h, Pseudokirchneriella subcapitata) EC50: 36 - 88.8mg/L (72h, Pseudokirchneriella subcapitata) EC50: =44.1mg/L (96h, Pseudokirchneriella subcapitata) | LC50: 121 - 150mg/L (96h, Poecilia reticulata) LC50: 36 - 49mg/L (96h, Lepomis macrochirus) LC50: 40.49 - 47.51mg/L (96h, Pimephales promelas) LC50: =92.2mg/L (96h, Brachydanio rerio) | -                          | EC50: 25.6 - 42mg/L (48h, Daphnia magna) EC50: =33mg/L (48h, Daphnia magna) |

### 12.2 Persistence and Degradability

No information available.

### 12.3 Bioaccumulative Potential

Inherently biodegradable.

| Chemical name           | Partition coefficient |
|-------------------------|-----------------------|
| Nitrobenzene<br>98-95-3 | 1.9                   |

### 12.4 Mobility in Soil

No data available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

## SECTION 13. Disposal considerations

### 13.1 Waste Disposal Methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not reuse empty containers.

## SECTION 14: Transport information

#### DOT

|                             |              |
|-----------------------------|--------------|
| <b>UN-No</b>                | UN1662       |
| <b>Proper Shipping Name</b> | Nitrobenzene |
| <b>Hazard Class</b>         | 6.1          |
| <b>Packing Group</b>        | II           |



### TDG

|                             |              |
|-----------------------------|--------------|
| <b>UN-No</b>                | UN1662       |
| <b>Proper Shipping Name</b> | Nitrobenzene |
| <b>Hazard Class</b>         | 6.1          |
| <b>Packing Group</b>        | II           |

### IATA/ICAO

|                             |              |
|-----------------------------|--------------|
| <b>UN-No</b>                | UN1662       |
| <b>Proper Shipping Name</b> | Nitrobenzene |
| <b>Hazard Class</b>         | 6.1          |
| <b>Packing Group</b>        | II           |

### IMDG/IMO

|                                   |              |
|-----------------------------------|--------------|
| <b>UN-No</b>                      | UN1662       |
| <b>Proper Shipping Name</b>       | Nitrobenzene |
| <b>Hazard Class Packing Group</b> | 6.1<br>II    |

## SECTION 15: Regulatory information

### International Inventories

|                      |   |
|----------------------|---|
| <b>TSCA</b>          | Complies  |
| <b>DSL/NDSL</b>      | Complies  |
| <b>EINECS/ELINCS</b> | Complies  |
| <b>ENCS</b>          | This product complies with ENCS:  |
| <b>IECSC</b>         | This product complies with China:   |
| <b>KECL</b>          | Complies  |
| <b>PICCS</b>         | Complies  |
| <b>AICS</b>          | All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS). |

### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical name          | SARA 313 - Threshold Values % |
|------------------------|-------------------------------|
| Nitrobenzene - 98-95-3 | 0.1                           |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Chemical name           | Hazardous Substances RQs            | Extremely Hazardous Substances RQs |
|-------------------------|-------------------------------------|------------------------------------|
| Nitrobenzene<br>98-95-3 | 1000 lb final RQ<br>454 kg final RQ | -                                  |

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

| Chemical name          | California Proposition 65                |
|------------------------|--|
| Nitrobenzene - 98-95-3 | male reproductive toxicity<br>carcinogen |

**U.S. State Right-to-Know Regulations**

| Chemical name           | New Jersey | Massachusetts | Pennsylvania         |
|-------------------------|------------|---------------|----------------------|
| Nitrobenzene<br>98-95-3 | 1361       | Present       | Environmental hazard |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## SECTION 16: Other information

Issue Date            07/29/2023  
Revision Date        08/22/2023

**Disclaimer:**

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.