

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifiers

Product name : Butyl nitrite

CAS-No. : 544-16-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 2)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Oral (Category 3)

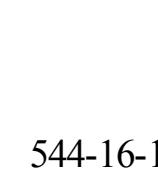
Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Toxic by inhalation and if swallowed.

### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word : Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H330 Fatal if inhaled.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P284 Wear respiratory protection.

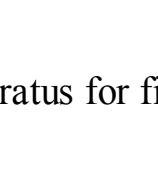
P310 Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements

none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R11 Highly flammable.

R23/25 Toxic by inhalation and if swallowed.

S-phrase(s)

S16 Keep away from sources of ignition - No smoking.

S24 Avoid contact with skin.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 2.3 Other hazards

Lachrymator.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Formula : C4H9NO2

Molecular Weight : 103,12 g/mol

Component

Concentration

Butyl nitrite

CAS-No. : 544-16-1

EC-No. : 208-862-1

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

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

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting,

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes

cyanosis. Onset may be delayed 2 to 4 hours or longer. Blurred vision, Palpitation

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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

Carbon oxides, nitrogen oxides (NOx)

### 5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

### 7.3 Specific end uses

no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is the responsibility of the user to make his own investigation to determine the suitability of the product for his intended use.

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall not be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee