

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

Nitric acid-d, 65 wt% in Deuterium oxide

### 1.1. Catalog No.:

1130

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

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04318 Leipzig  
Germany

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## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Oxidizing liquids (Category 3), H272 Skin corrosion (Sub-category 1A), H314 Serious eye damage (Category 1), H318

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2 Label elements Labelling according Regulation (EC) No 1272/2008

Signal word Danger

Hazard statement(s) H272 May intensify fire; oxidizer. H314 Causes severe skin burns and eye damage.

Precautionary statement(s) P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Supplemental Hazard information (EU) EUH071 Corrosive to the respiratory tract. 2.3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Reacts violently with water. Reacts violently with water.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures Formula : DNO3 Molecular weight : 64,02 g/mol

Component: nitric acid-d1

Classification: Ox. Liq. 2; Met. Corr. 1; Acute Tox. 1; Skin Corr. 1A; Eye Dam. 1; H272, H290, H330, H314, H318

Concentration limits:  $\geq 20$  %: Skin Corr. 1A, H314;  $5 - < 20$  %: Skin Corr. 1B, H314;  $65 - < 99$  %: Ox. Liq. 3, H272;  $\geq 99$  %: Ox. Liq. 2, H272;  $\geq 3$  %: Eye Dam. 1, H318;  $1 - < 3$  %: Eye Irrit. 2, H319;  $1 - < 5$  %: Skin Irrit. 2, H315;

Concentration:  $\geq 65$  %

#### 3.1.1. Formula

DNO3

#### 3.1.2. Molecular Weight (g/mol)

64.02

#### 3.1.3. CAS-No.

13587-52-5

### 4. FIRST AID MEASURES

4.1 Description of first-aid measures General advice Consult a physician. Show this material 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 Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. 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 The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 4.3 Indication of any immediate medical attention and special treatment needed No data available

### 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture Nitrogen oxides (NOx) 5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting 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 Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8. 6.2 Environmental precautions 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 wetbrushing 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 inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. For precautions see section 2.2. 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. Store under inert gas. hygroscopic Light sensitive. 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment

Eye/face protection Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested

and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Appearance Form: liquid b) Odor No data available c) Odor Threshold No data available d) pH No data available e) Melting point/freezing point No data available f) Initial boiling point and boiling range No data available g) Flash point No data available h) Evaporation rate No data available i) Flammability (solid, gas) No data available j) Upper/lower flammability or explosive limits No data available k) Vapor pressure No data available l) Vapor density No data available m) Relative density No data available n) Water solubility No data available o) Partition coefficient: n-octanol/water No data available p) Autoignition temperature No data available q) Decomposition temperature No data available r) Viscosity No data available s) Explosive properties No data available t) Oxidizing properties No data available 9.2 Other safety information No data available

## 10. STABILITY AND REACTIVITY

10.1 Reactivity No data available 10.2 Chemical stability Stable under recommended storage conditions. 10.3 Possibility of hazardous reactions No data available 10.4 Conditions to avoid Exposure to light may affect product quality. 10.5 Incompatible materials Bases, Reducing agents, Alcohol, Alkali metals, Brass, Copper, Amines, Aluminum, Organic materials, Iron 10.6 Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx) Other decomposition products - No data available In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity No data available Inhalation: No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation No data available Respiratory or skin sensitization No data available Germ cell mutagenicity No data available Carcinogenicity IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available Additional Information RTECS: Not available Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Large doses may cause: conversion of hemoglobin to methemoglobin, producing cyanosis; marked fall in blood pressure, leading to collapse, coma, and possibly death.

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity No data available 12.2 Persistence and degradability No data available 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Other adverse effects No data available

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging Dispose of as unused product.

## 14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: 2031 IMDG: 2031 IATA: 2031 14.2 UN proper shipping name ADR/RID: NITRIC ACID IMDG: NITRIC ACID IATA: Nitric acid Passenger Aircraft: Not permitted for transport 14.3 Transport hazard class(es) ADR/RID: 8 (5.1) IMDG: 8 (5.1) IATA: 8 (5.1) 14.4 Packaging group ADR/RID: II IMDG: II IATA: II 14.5 Environmental hazards ADR/RID: no IMDG Marine pollutant: no IATA: no 14.6 Special precautions for user No data available

## 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment For this product a chemical safety assessment was not carried out

## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only 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. For lab use only!