



**Material Safety Data Sheet**  
according to ANSI Z400.1-2004

**(+)-HNO-Hydrochloride**

Print date: 11.06.2012

Product code: 1643

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**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation**

Provide fresh air.

**After contact with skin**

After contact with skin, wash immediately with: Water. Change contaminated clothing.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink large quantities of water. Medical treatment necessary.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing media**

Water spray. Foam. Extinguishing powder. Carbon dioxide (CO<sub>2</sub>).

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

Can be released in case of fire: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>).  
Hydrogen chloride (HCl).

**Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Contaminated fire-fighting water must be collected separately. Do not empty into drains or the aquatic environment.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment. Provide adequate ventilation. Avoid generation of dust.

**Environmental precautions**

Do not empty into drains or the aquatic environment.

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

Collect mechanically. Treat the assimilated material according to the section on waste disposal.

**SECTION 7: Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Do not breathe dust. In case of open handling equipment with built-in suction must be used.

**Further information on handling**

Do not eat, drink, smoke or sneeze at the workplace.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container dry. Keep container tightly closed.

**Further information on storage conditions**

storage temperature:  
of °C: -25

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up to °C: -15

Protect against: Light.

Handling and storage Store under (Gas): argon. Nitrogen.

**SECTION 8: Exposure controls/personal protection****Control parameters****Exposure controls****Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and at the end of work. When using do not eat or drink. Protect skin by using skin protective cream.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

**Hand protection**

Tested protective gloves are to be worn: Single-use gloves. NBR (Nitrile rubber).

**Eye protection**

Eye protection: Tightly sealed safety glasses.

**Skin protection**

Skin protection: Lab apron. Chemical resistant safety shoes.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties**

Form: solid  
Color: beige

**Test method****Changes in the physical state**

Water solubility: easily soluble.

Solubility in other solvents: Methanol. Ethanol. dimethylsulphoxide (DMSO).

**SECTION 10: Stability and reactivity**

Stability: Stable  
Possibility of Hazardous Reactions: Will not occur

**Conditions to avoid**

Light.

**Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>). Hydrochloric gas.

**SECTION 11: Toxicological information****Information on toxicological effects****Carcinogenic/mutagenic/toxic effects for reproduction**

No information available.

**Additional information on tests**

The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

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**Further information**

Toxicological data are not available.

**SECTION 12: Ecological information**

**Further information**

Do not empty into drains or the aquatic environment. The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations**

**Waste treatment methods**

**Advice on disposal**

Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

**Contaminated packaging**

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

**SECTION 14: Transport information**

**US DOT 49 CFR 172.101**

**Proper shipping name**

Not a hazardous material with respect to transportation regulations.

**Other applicable information**

Not a hazardous material with respect to these transportation regulations.

**SECTION 15: Regulatory information**

**U.S. Regulations**

**SECTION 16: Other information**

**Hazardous Materials Information Label (HMIS)**

Health:	1
Flammability:	1
Physical Hazard:	1
Personal Protection:	C

**NFPA Hazard Ratings**

Health:	1
Flammability:	1
Reactivity:	1
Unique Hazard:	

