

# SAFETY DATA SHEET

Version 8.4  
Revision Date 22.02.2023  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Sodium ICP standard traceable to SRM from NIST NaNO<sub>3</sub> in HNO<sub>3</sub> 2-3% 1000 mg/l Na Certipur®

Product Number : 1.70353  
Catalogue No. : 170353  
Brand : Millipore

### 1.2 Other means of identification

No data available

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

Identified uses : Reagent for analysis

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

Company : Sigma-Aldrich Pte Ltd  
(Co. Registration No. 199403788W)  
2 Science Park Drive  
#05-01/12 Ascent Building  
SINGAPORE 118222  
SINGAPORE

Telephone : +65 6890 6633  
Fax : +65 6890 6639  
E-mail address : TechnicalService@merckgroup.com

### 1.5 Emergency telephone

Emergency Phone # : 1-800-262-8200

## SECTION 2: Hazards identification

### 2.1 GHS Classification

Corrosive to Metals (Category 1), H290  
Skin corrosion/irritation (Category 2), H315  
Serious eye damage/eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word : Warning

Hazard statement(s)  
H290 : May be corrosive to metals.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
Precautionary statement(s)	
Prevention	
P234	Keep only in original container.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ eye protection/ face protection.
Response	
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
Storage	
P406	Store in corrosive resistant container with a resistant inner liner.

**Reduced Labeling (<= 125 ml)**

Pictogram



Signal Word none

Hazard statement(s) none

Precautionary statement(s) none

Refer to the Safety Data Sheet before use.

**2.3 Other hazards - none**

**SECTION 3: Composition/information on ingredients**

Substance / Mixture : Mixture

**3.2 Mixtures**

**Hazardous ingredients**

Component	Classification	Concentration
<b>nitric acid</b>		
CAS-No. 7697-37-2	Ox. Liq. 3; Met. Corr. 1; Acute Tox. 3; Skin Corr./Irrit. 1A; Eye Dam./Irrit. 1; H272, H290, H331, H314, H318 Concentration limits: >= 1 %: Met. Corr. 1, H290; 1 - < 5 %: Skin Irrit. 2, H315; 1 - < 3 %: Eye Irrit. 2, H319; >= 3 %: 1, H318; >= 65 %:	>= 1 - < 3 %
EC-No. 231-714-2		
Index-No. 007-030-00-3		

	Ox. Liq. 3, H272; $\geq 20$ %: Skin Corr. 1A, H314; 5 - $< 20$ %: Skin Corr. 1B, H314; $\geq 3$ %: Eye Dam. 1, H318; 1 - $< 3$ %: Eye Irrit. 2, H319; 1 - $< 5$ %: Skin Irrit. 2, H315;	
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For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Nitrogen oxides (NO<sub>x</sub>)

Not combustible.

Ambient fire may liberate hazardous vapours.

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

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

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

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

Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemisorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Observe label precautions.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

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

#### Storage conditions

No metal containers.

Tightly closed.

Recommended storage temperature see product label.

#### Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.3 no other specific uses are stipulated.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
nitric acid	7697-37-2	PEL (long term)	2 ppm 5.2 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances

		PEL (short term)	4 ppm 10 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
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## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eye/face protection

Safety glasses

#### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

#### Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                   |                   |
|-------------------|-------------------|
| a) Physical state | liquid            |
| b) Color          | colorless         |
| c) Odor           | odorless          |
| d) Melting        | No data available |

	point/freezing point	
e)	Initial boiling point and boiling range	No data available
f)	Flammability (solid, gas)	No data available
g)	Upper/lower flammability or explosive limits	No data available
h)	Flash point	No data available
i)	Autoignition temperature	Not applicable
j)	Decomposition temperature	No data available
k)	pH	ca.0.5 at 20 °C
l)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m)	Water solubility	at 20 °C soluble
n)	Partition coefficient: n-octanol/water	No data available
o)	Vapor pressure	No data available
p)	Density	ca.1.013 g/cm <sup>3</sup> at 20 °C
	Relative density	No data available
q)	Relative vapor density	No data available
r)	Particle characteristics	No data available
s)	Explosive properties	Not classified as explosive.
t)	Oxidizing properties	none

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with:

Metals

metal alloys

Release of:

nitrous gases

Hydrogen  
Violent reactions possible with:  
The generally known reaction partners of water.  
increased reactivity with:  
oxidisable substances  
organic solvent  
Alkali metals  
Alkaline earth metals  
Ammonia  
alkalines  
Acids

#### **10.4 Conditions to avoid**

No data available

#### **10.5 Incompatible materials**

Metals, metal alloys(generation of hydrogen)

#### **10.6 Hazardous decomposition products**

In the event of fire: see section 5

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### **SECTION 11: Toxicological information**

#### **11.1 Information on toxicological effects**

##### **Mixture**

##### **Acute toxicity**

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate Inhalation - 4 h - > 20 mg/l - vapor(Calculation method)

Dermal: 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**

No data available

##### **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

## 11.2 Additional Information

irritant effects

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

### Components

#### nitric acid

##### Acute toxicity

Oral: No data available

Acute toxicity estimate Inhalation - 4 h - 2.65 mg/l - vapor  
(Expert judgment)

Dermal: No data available

##### Skin corrosion/irritation

Skin - Rabbit

Result: Causes severe burns.

Remarks: (IUCLID)

Remarks: Causes poorly healing wounds.

##### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes burns.

Remarks: (IUCLID)

Remarks: Causes serious eye damage.

##### Respiratory or skin sensitization

No data available

##### Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

##### Carcinogenicity

No data available

##### 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



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**SECTION 12: Ecological information****12.1 Toxicity****Mixture**

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**

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

**Components****nitric acid**

No data available

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 3264

IMDG: 3264

IATA-DGR: 3264

**14.2 UN proper shipping name**

ADR/RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

IATA-DGR: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

**14.3 Transport hazard class(es)**

ADR/RID: 8

IMDG: 8

IATA-DGR: 8

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA-DGR: III

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

#### **14.6 Special precautions for user**

None

#### **14.7 Incompatible materials**

Metals, metal alloys(generation of hydrogen)

#### **Other regulations**

Hazchem Code : 2X

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### **SECTION 15: Regulatory information**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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### **SECTION 16: Other information**

#### **-Full text of H-Statements referred to under sections 2 and 3.**

H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.

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