

# SAFETY DATA SHEET

**Creation Date** 22-Sep-2009

Revision Date 19-Dec-2025

## Revision Number 10

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

## **Ruthenium(III) nitrosyl nitrate, in diluted nitric acid**

**Cat No.:** AC365040000; AC365040250; AC365041000; AC365045000

**Synonyms** No information available

|                             |  |
|-----------------------------|--|
| <b>Recommended Use</b>      | Laboratory chemicals.                          |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use. |

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

## Company

## **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11

Emergency Number **US:** 001-201-796-7100 / **Europe:** +32 14 57 52 99

**CHEMTREC Tel. No. US:001-800-424-9300 / Europe:001-703-527-3887**

## 2. Hazard(s) identification

## Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

|                                    |              |
|------------------------------------|--------------|
| Oxidizing liquids                  | Category 3   |
| Corrosive to metals                | Category 1   |
| Acute Inhalation Toxicity - Vapors | Category 4   |
| Skin Corrosion/Irritation          | Category 1 A |
| Serious Eye Damage/Eye Irritation  | Category 1   |

## Label Elements

## Signal Word

## Danger

## Hazard Statements

May intensify fire; oxidizer

May be corrosive to metals

Causes severe skin burns and eye damage  
Harmful if inhaled



### Precautionary Statements

#### Prevention

Use only outdoors or in a well-ventilated area  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Keep away from clothing and other combustible materials  
Take any precaution to avoid mixing with combustibles  
Keep only in original packaging  
Wear respiratory protection

#### Response

Immediately call a POISON CENTER or doctor

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
Take off contaminated clothing and wash before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### Ingestion

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

#### Fire

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### Spills

Absorb spillage to prevent material damage

#### Storage

Store locked up  
Store in a well-ventilated place. Keep container tightly closed  
Store in corrosive resistant polypropylene container with a resistant inliner  
Store in a dry place

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Corrosive to the respiratory tract

#### Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

### 3. Composition/information on Ingredients

| Component                           | CAS No     | Weight % |
|-------------------------------------|------------|----------|
| Water                               | 7732-18-5  | 65-75    |
| Nitric acid ...% [C ≤ 70 %]         | 7697-37-2  | 20-30    |
| Ruthenium, tris(nitrato-O)nitrosyl- | 34513-98-9 | 5        |

## 4. First-aid measures

|  |  |
|--|--|
| <b>General Advice</b>                      | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.  |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.  |
| <b>Inhalation</b>                          | If not breathing, give artificial respiration. Remove from exposure, lie down. 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. Call a physician immediately. |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.   |
| <b>Most important symptoms and effects</b> | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation                                |
| <b>Notes to Physician</b>                  | Treat symptomatically  |

## 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>     | CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available  |
| <b>Flash Point</b>                      | No information available  |
| <b>Method -</b>                         | No information available  |
| <b>Autoignition Temperature</b>         | No information available  |
| <b>Explosion Limits</b>                 |   |
| <b>Upper</b>                            | No data available   |
| <b>Lower</b>                            | No data available   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

### **Hazardous Combustion Products**

Nitrogen oxides (NOx). Thermal decomposition can lead to release of irritating gases and vapors.

### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### **NFPA**

Health  
3

Flammability  
1

Instability  
3

Physical hazards  
OX

## 6. Accidental release measures

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| <b>Environmental Precautions</b> | Should not be released into the environment.  |

**Methods for Containment and Clean Up** Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

## 7. Handling and Storage

|                 |  |
|-----------------|--|
| <b>Handling</b> | Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.  |
| <b>Storage.</b> | Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store in metal containers. Keep in properly labeled containers. Incompatible Materials. Organic materials. Finely powdered metals. Alkali metals. Alcohols. Reducing Agent. Metals. |

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component                   | ACGIH TLV                 | OSHA PEL  | NIOSH   | Mexico OEL (TWA)          |
|-----------------------------|---------------------------|---|---|---------------------------|
| Nitric acid ...% [C ≤ 70 %] | TWA: 2 ppm<br>STEL: 4 ppm | (Vacated) TWA: 2 ppm<br>(Vacated) TWA: 5 mg/m <sup>3</sup><br>(Vacated) STEL: 4 ppm<br>(Vacated) STEL: 10 mg/m <sup>3</sup><br>TWA: 2 ppm<br>TWA: 5 mg/m <sup>3</sup> | IDLH: 25 ppm<br>REL = 2 ppm (TWA)<br>REL = 5 mg/m <sup>3</sup> (TWA)<br>STEL: 4 ppm<br>STEL: 10 mg/m <sup>3</sup> | TWA: 2 ppm<br>STEL: 4 ppm |

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

**Eye/face Protection** Tight sealing safety goggles. Face protection shield.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Particulates filter conforming to EN 143.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

Appearance

|  |                          |  |
|--|--------------------------|--|
| <b>Physical State</b>                          | Liquid                   |  |
| <b>Color</b>                                   | Amber                    |  |
| <b>Odor</b>                                    | Acidic                   |  |
| <b>Odor Threshold</b>                          | No information available |  |
| <b>Property</b>                                | <b>Values</b>            | <b>Remarks</b>                           |
| <b>Melting Point/Range</b>                     | No data available        |  |
| <b>Softening Point</b>                         | No data available        |  |
| <b>Boiling Point/Range</b>                     | No information available |  |
| <b>Flash Point</b>                             | No information available | <b>Method</b> - No information available |
| <b>Flammability (liquid)</b>                   | No data available        |  |
| <b>Flammability (solid,gas)</b>                | Not applicable           |  |
| <b>Explosion Limits</b>                        | No data available        | Liquid                                   |
| <b>Autoignition Temperature</b>                | No data available        |  |
| <b>Decomposition Temperature</b>               | No data available        |  |
| <b>pH</b>                                      | 1-2                      |  |
| <b>Viscosity</b>                               | No data available        |  |
| <b>Water Solubility</b>                        | Miscible                 |  |
| <b>Solubility in other solvents</b>            | No information available |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |  |
| <b>Component</b>                               | <b>log Pow</b>           |  |
| Nitric acid ...% [C ≤ 70 %]                    | -2.3                     |  |
| <b>Vapor Pressure</b>                          | No data available        |  |
| <b>Density / Specific Gravity</b>              | 1.070                    |  |
| <b>Bulk Density</b>                            | Not applicable           |  |
| <b>Vapor Density</b>                           | No data available        | Liquid                                   |
| <b>Particle characteristics</b>                | Not applicable (liquid)  | (Air = 1.0)                              |

Other Information**10. Stability and reactivity**

|   |  |
|---|--|
| <b>Reactive Hazard</b>                  | Yes  |
| <b>Stability</b>                        | No information available.  |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Exposure to air or moisture over prolonged periods.                      |
| <b>Incompatible Materials</b>           | Organic materials, Finely powdered metals, Alkali metals, Alcohols, Reducing Agent, Metals                   |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NO <sub>x</sub> ), Thermal decomposition can lead to release of irritating gases and vapors |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.   |
| <b>Hazardous Reactions</b>              | None under normal processing.  |

**11. Toxicological information**Information on expected route of exposure

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Not an expected route of exposure.  |
| <b>Ingestion</b>  | May be harmful if swallowed.  |
| <b>Eyes</b>       | Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. |
| <b>Skin</b>       | Avoid contact with skin. Causes burns. Skin Corrosion/Irritation.                               |

**Toxicology data for the components**

| Component                   | LD50 Oral | LD50 Dermal | LC50 Inhalation           |
|-----------------------------|-----------|-------------|---------------------------|
| Water                       | -         | -           | -                         |
| Nitric acid ...% [C ≤ 70 %] | -         | -           | LC50 = 2500 ppm. (Rat) 1h |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Category 1 A

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**  
 Respiratory No data available  
 Skin No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

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

| Component                           | CAS No     | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-------------------------------------|------------|------------|------------|------------|------------|------------|
| Water                               | 7732-18-5  | Not listed |
| Nitric acid ...% [C ≤ 70 %]         | 7697-37-2  | Not listed |
| Ruthenium, tris(nitrito-O)nitrosyl- | 34513-98-9 | Not listed |

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

Target Organs None known.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains.

|                                      |   |
|--------------------------------------|---|
| <b>Persistence and Degradability</b> | Miscible with water Persistence is unlikely based on information available. |
| <b>Bioaccumulation/ Accumulation</b> | No information available.   |
| <b>Mobility</b>                      | Will likely be mobile in the environment due to its water solubility.       |

| Component                   | log Pow |
|-----------------------------|---------|
| Nitric acid ...% [C ≤ 70 %] | -2.3    |

### 13. Disposal considerations

|                               |   |
|-------------------------------|---|
| <b>Waste Disposal Methods</b> | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
|-------------------------------|---|

### 14. Transport information

**DOT**

|                                |  |
|--------------------------------|--|
| <b>UN-No</b>                   | UN3093                                       |
| <b>Proper Shipping Name</b>    | CORROSIVE LIQUIDS, OXIDIZING, N.O.S.         |
| <b>Technical Shipping Name</b> | Ruthenium(III) nitrosyl nitrate, Nitric acid |
| <b>Hazard Class</b>            | 8  |
| <b>Subsidiary Hazard Class</b> | 5.1  |
| <b>Packing Group</b>           | II   |

**TDG**

|                                |  |
|--------------------------------|--|
| <b>UN-No</b>                   | UN3093                                       |
| <b>Proper Shipping Name</b>    | Corrosive liquid, oxidizing, n.o.s.          |
| <b>Technical Shipping Name</b> | Ruthenium(III) nitrosyl nitrate, Nitric acid |
| <b>Hazard Class</b>            | 8  |
| <b>Subsidiary Hazard Class</b> | 5.1  |
| <b>Packing Group</b>           | II   |

**IATA**

|                                |  |
|--------------------------------|--|
| <b>UN-No</b>                   | UN3093                                       |
| <b>Proper Shipping Name</b>    | Corrosive liquid, oxidizing, n.o.s.          |
| <b>Technical Shipping Name</b> | Ruthenium(III) nitrosyl nitrate, Nitric acid |
| <b>Hazard Class</b>            | 8  |
| <b>Subsidiary Hazard Class</b> | 5.1  |
| <b>Packing Group</b>           | II   |

**IMDG/IMO**

|                                |  |
|--------------------------------|--|
| <b>UN-No</b>                   | UN3093                                       |
| <b>Proper Shipping Name</b>    | Corrosive liquid, oxidizing, n.o.s.          |
| <b>Technical Shipping Name</b> | Ruthenium(III) nitrosyl nitrate, Nitric acid |
| <b>Hazard Class</b>            | 8  |
| <b>Subsidiary Hazard Class</b> | 5.1  |
| <b>Packing Group</b>           | II   |

### 15. Regulatory Information

#### United States of America Inventory

| Component                           | CAS No     | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-------------------------------------|------------|------|---|-----------------------------|
| Water                               | 7732-18-5  | X    | ACTIVE  | -                           |
| Nitric acid ...% [C ≤ 70 %]         | 7697-37-2  | X    | ACTIVE  | -                           |
| Ruthenium, tris(nitrito-O)nitrosyl- | 34513-98-9 | X    | ACTIVE  | -                           |

**Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

#### **International Inventories**

X = listed, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

| Component                            | CAS No     | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|--------------------------------------|------------|-----|------|-----------|-------|------|------|------|-------|----------|
| Water                                | 7732-18-5  | X   | -    | 231-791-2 | X     | X    |      | X    | X     | KE-35400 |
| Nitric acid ...% [C ≤ 70 %]          | 7697-37-2  | X   | -    | 231-714-2 | X     | X    | X    | X    | X     | KE-25911 |
| Ruthenium, tris(nitroato-O)nitrosyl- | 34513-98-9 | -   | X    | 252-068-8 | -     | -    | X    | -    | -     | KE-34855 |

**KECL - NIER number or KE number** (<http://ncis.nier.go.kr/en/main.do>)

#### **U.S. 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.

| Component                   | CAS No    | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting thresholds |
|-----------------------------|-----------|----------|-------------------------------|---------------------------------|
| Nitric acid ...% [C ≤ 70 %] | 7697-37-2 | 20-30    | 1.0 %                         | -                               |

##### **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)**

| Component                   | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-----------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Nitric acid ...% [C ≤ 70 %] | X                          | 1000 lb                     | -                      | -                         |

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

| Component                   | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|-----------------------------|----------------------------------|----------------------------|
| Nitric acid ...% [C ≤ 70 %] | -                                | TQ: 500 lb                 |

##### **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) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component                   | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|-----------------------------|--------------------------|---|-------------------------------|
| Nitric acid ...% [C ≤ 70 %] | 1000 lb                  | 1000 lb                                   | 1000 lb<br>454 kg             |

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

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

**Regulations**

| Component                           | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------------------------|---------------|------------|--------------|----------|--------------|
| Water                               | -             | -          | X            | -        | -            |
| Nitric acid ...% [C ≤ 70 %]         | X             | X          | X            | X        | X            |
| Ruthenium, tris(nitrito-O)nitrosyl- | -             | X          | -            | X        | -            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product contains the following DHS chemicals:

**Legend** - STQs = Screening Threshold Quantities, APA = A placarded amount

| Component                   | DHS Chemical Facility Anti-Terrorism Standard |
|-----------------------------|---|
| Nitric acid ...% [C ≤ 70 %] | Release STQs - 15000lb<br>Theft STQs - 400lb  |

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

| Component                           | CAS No     | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-------------------------------------|------------|---|---|---|
| Water                               | 7732-18-5  | -   | -   | -   |
| Nitric acid ...% [C ≤ 70 %]         | 7697-37-2  | -   | Use restricted. See entry 75.<br>(see link for restriction details)           | -   |
| Ruthenium, tris(nitrito-O)nitrosyl- | 34513-98-9 | -   | -   | -   |

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

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

| Component                           | CAS No     | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-------------------------------------|------------|----------------|------------------------------|---------------------------|--|
| Water                               | 7732-18-5  | Listed         | Not applicable               | Not applicable            | Not applicable                             |
| Nitric acid ...% [C ≤ 70 %]         | 7697-37-2  | Listed         | Not applicable               | Not applicable            | Not applicable                             |
| Ruthenium, tris(nitrito-O)nitrosyl- | 34513-98-9 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

**Contains component(s) that meet a 'definition' of per & poly fluorooalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

| Component | CAS No | Seveso III Directive | Seveso III Directive | Rotterdam | Basel Convention |
|-----------|--------|----------------------|----------------------|-----------|------------------|
|           |        |                      |                      |           |                  |

|                                    |            | (2012/18/EC) - Qualifying Quantities for Major Accident Notification | (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Convention (PIC) | (Hazardous Waste) |
|------------------------------------|------------|--|---|------------------|-------------------|
| Water                              | 7732-18-5  | Not applicable   | Not applicable  | Not applicable   | Not applicable    |
| Nitric acid ...% [C ≤ 70 %]        | 7697-37-2  | Not applicable   | Not applicable  | Not applicable   | Annex I - Y34     |
| Ruthenium, tris(nitato-O)nitrosyl- | 34513-98-9 | Not applicable   | Not applicable  | Not applicable   | Not applicable    |

## 16. Other Information

|                         |   |
|-------------------------|---|
| <b>Prepared By</b>      | Product stewardship (Regulatory Affairs)<br>Thermo Fisher Scientific<br>email - begel.sdsdesk@thermofisher.com  |
| <b>Creation Date</b>    | 22-Sep-2009   |
| <b>Revision Date</b>    | 19-Dec-2025   |
| <b>Print Date</b>       | 19-Dec-2025   |
| <b>Revision Summary</b> | Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024. |

### Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**