**1 Identification**

- **Product identifier**
  - **Trade name:** Nitrogen 100μg/mL in H2O
  - **Article number:** IC-NO3

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** High-Purity Standards
    - Address: PO Box 41727 Charleston, SC 29423 United States
    - Telephone: +1-843-767-7900
    - Fax: +1-843-767-7906
    - Website: highpuritystandards.com
    - Email: info@highpuritystandards.com

- **Information department:** Product safety department
- **Emergency telephone number:** INFOTRAC
  - Emergency telephone numbers: 1-800-535-5053
  - Other emergency telephone numbers: 1-352-323-3500

**2 Hazard(s) identification**

- **Classification of the substance or mixture**
  - The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements:** Void
  - **Hazard pictograms:** Void
  - **Signal word:** Void
  - **Hazard statements:** Void

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health: 0
    - Fire: 0
    - Reactivity: 0

  - **HMIS-ratings (scale 0 - 4)**
    - Health: 0
    - Fire: 0
    - Reactivity: 0

- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

**3 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 2)
4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**
  - **PAC-1:**
    | 7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen | 4.1 mg/m³ |
  - **PAC-2:**
    | 7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen | 45 mg/m³ |
  - **PAC-3:**
    | 7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen | 270 mg/m³ |
7 Handling and storage

· **Handling:**
· **Precautions for safe handling** No special measures required.
· **Information about protection against explosions and fires:** No special measures required.
· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.
· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists that were valid during the creation were used as basis.
· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
· **Breathing equipment:** Not required.
· **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**
  · **Form:** Liquid
  · **Color:** colorless

(Contd. on page 4)
Trade name: Nitrogen 100μg/mL in H2O

- Odor: Characteristic
- Odor threshold: Not determined.
- pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100 °C (212 °F)
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)
- Density at 20 °C (68 °F): 1.00013 g/cm³ (8.34608 lbs/gal)
- Bulk density: 1,000 kg/m³
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with
  - Water: Fully miscible.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Water: 100.0 %
  - VOC content: 0.00 %
  - 0.0 g/l / 0.00 lb/gal
- Solids content: 0.0 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
## 11 Toxicological information

· **Information on toxicological effects**
  · **Acute toxicity:**
  · **Primary irritant effect:**
    · **on the skin:** No irritant effect.
    · **on the eye:** No irritating effect.
  · **Sensitization:** No sensitizing effects known.
  · **Additional toxicological information:**
    The product is not subject to classification according to internally approved calculation methods for preparations:
    When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 11.1 Carcinogenic categories

- **IARC (International Agency for Research on Cancer)**
  None of the ingredients is listed.

- **NTP (National Toxicology Program)**
  None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**
  None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**
  · **Aquatic toxicity:** No further relevant information available.
  · **Persistence and degradability** No further relevant information available.
  · **Behavior in environmental systems:**
  · **Bioaccumulative potential** No further relevant information available.
  · **Mobility in soil** No further relevant information available.
  · **Additional ecological information:**
  · **General notes:** Not hazardous for water.
  · **Results of PBT and vPvB assessment**
    · **PBT:** Not applicable.
    · **vPvB:** Not applicable.
  · **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
Trade name: Nitrogen 100μg/mL in H2O

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: not regulated
- UN proper shipping name
  - DOT, ADR, IMDG, IATA: not regulated
- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA: not regulated
- Packing group
  - DOT, ADR, IMDG, IATA: not regulated
- Environmental hazards:
  - Not applicable.
- Special precautions for user:
  - Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
  - Not applicable.
- UN "Model Regulation":
  - not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      - None of the ingredients is listed.
    - Section 313 (Specific toxic chemical listings):
      - None of the ingredients is listed.
    - TSCA (Toxic Substances Control Act):
      - All components have the value ACTIVE.
    - Hazardous Air Pollutants
      - None of the ingredients is listed.
    - Proposition 65
      - Chemicals known to cause cancer:
        - None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for females:
        - None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for males:
        - None of the ingredients is listed.
Trade name: Nitrogen 100μg/mL in H2O

· Chemicals known to cause developmental toxicity:
  None of the ingredients is listed.

· Carcinogenic categories
  - EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

· GHS label elements Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
· Contact:
  High-Purity Standards
  Tel: 843-767-7900
  Fax: 843-767-7906
· Date of preparation / last revision 08/16/2019 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit