



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/02/2015

Reviewed on 06/02/2015

* 1 Identification

- **Product identifier**
- **Trade name: Nitrate ISE Standard Solution**
- **Product number:** SD0N31 - xx, or SD0N32 - xx
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Product description** 0.1M NO₃⁻ as N, or 1000 ppm NO₃⁻ as N standard solution
- **Application of the substance / the mixture** Buffers, Filling & Calibration Solutions
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Analytical Sensors & Instruments, Ltd.
12800 Park One Drive
Sugar Land TX, 77478
www.asi-sensors.com
- **Emergency telephone number:** Bill Boyne 281-565-8818 x 133

* 2 Hazard(s) identification

- **Classification of the substance or mixture**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

- **Label elements**
- **GHS label elements** Non-Regulated Material
- **Hazard pictograms** Non-Regulated Material
- **Signal word** Non-Regulated Material
- **Hazard statements** Non-Regulated Material
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



The substance possesses oxidizing properties.

- **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/information on ingredients

7732-18-5	water, distilled water, deionized water	> 97.5%
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- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous Components:		
7631-99-4	Sodium Nitrate	⚠ Ox. Sol. 2, H272; ⚠ Eye Irrit. 2A, H319 < 2.5%

* 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

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Trade name: Nitrate ISE Standard Solution**· After skin contact:**

Generally the product does not irritate the skin.

Wash with soap and water.

If skin irritation occurs, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

· After swallowing: If swallowed and symptoms occur, consult a 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:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**· Special hazards arising from the substance or mixture** No further relevant information available.**· Advice for firefighters**

Sodium Nitrate is an oxidizer and will release oxygen gas upon decomposition, which may intensify any fires. Use caution.

· Protective equipment:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

*** 6 Accidental release measures****· Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Avoid contact with skin, eyes and clothing.

Keep away from ignition sources.

· Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (ie. sand, diatomite, universal binders), do NOT use sawdust.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· 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.

*** 7 Handling and storage****· Handling:****· Precautions for safe handling** No special precautions are necessary if used correctly.**· Information about protection against explosions and fires:** Protect from heat.**· Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:** No special requirements.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **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 section 7.
- **Control parameters**
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.
- **Components with occupational exposure limits:**
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 of this SDS were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

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.

Select glove material based on penetration times, rates of diffusion and 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 cannot 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 determined and observed by the manufacturer of the protective gloves.
- **Eye protection:**



Tightly sealed goggles

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Trade name: Nitrate ISE Standard Solution*** 9 Physical and chemical properties****· Information on basic physical and chemical properties****· General Information****· Appearance:**

Form: Liquid
Color: Clear, colorless

· Odor: Odorless

· Odor threshold: Not determined.

· pH-value @ 20 °C (68 °F): 9

· Change in condition

Melting point/Melting range: Not determined.

Boiling point/Boiling range: 100 °C (212 °F)

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Auto igniting: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower: 0.0 Vol %

Upper: 0.0 Vol %

· Vapor pressure @ 20 °C (68 °F): 23 hPa (17 mm Hg)

· Density @ 20 °C (68 °F): 1.008 g/cm³ (8.412 lbs/gal)

· 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:

Organic solvents: 0.0 %

Water: > 97.5 %

Solids content: < 2.5 %

· Other information No further relevant information available.

*** 10 Stability and reactivity**

· Reactivity No further relevant information available.

· Chemical stability Stable under normal conditions.

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

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Trade name: Nitrate ISE Standard Solution

- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
Strong acids, strong oxidizing agents, strong reducing agents organic material and powdered metals.
- **Hazardous decomposition products:** Sodium Oxides and Nitrogen Oxides (NOx).

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

7631-99-4 Sodium Nitrate

Oral	LD50	3236 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:**
Irritating effect.
Causes serious eye irritation.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

None of the ingredients are listed.

- **NTP (National Toxicology Program)**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

* 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

7631-99-4 Sodium Nitrate

EC50	6000 mg/l (Water flea)
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- **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 known to be hazardous to water.

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- **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:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Dispose of as unused product.

* 14 Transport information

- **UN-Number**
- **DOT, ADN, IMDG, IATA** Non-Regulated Material
- **ADR** Non-Regulated Material
Not Regulated
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Non-Regulated Material
- **Packing group**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **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":** -

* 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 are listed.
· Section 313 (Specific toxic chemical listings):	None of the ingredients are listed.
· TSCA (Toxic Substances Control Act):	All ingredients are listed.
· California Proposition 65	
· Chemicals known to cause cancer:	None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for females:	None of the ingredients are listed.

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· Chemicals known to cause reproductive toxicity for males:			
None of the ingredients are listed.			
· Chemicals known to cause developmental toxicity:			
None of the ingredients are listed.			
· Carcinogenic categories			
· EPA (Environmental Protection Agency)			
None of the ingredients are listed.			
· TLV (Threshold Limit Value established by ACGIH)			
None of the ingredients are listed.			
· NIOSH-Ca (National Institute for Occupational Safety and Health)			
None of the ingredients are listed.			
· GHS label elements Non-Regulated Material			
· Hazard pictograms Non-Regulated Material			
· Signal word Non-Regulated Material			
· Hazard statements Non-Regulated Material			
· National regulations:			
The product is subject to be classified according with the latest version of the regulations on hazardous substances.			
· State Right to Know			
7732-18-5	water, distilled water, deionized water		> 97.5%
7631-99-4	Sodium Nitrate	⚠ Ox. Sol. 2, H272; ⚠ Eye Irrit. 2A, H319	< 2.5%
All ingredients are listed.			
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.			

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision** 06/02/2015 / -

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Ox. Sol. 2: Oxidising Solids, Hazard Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106