

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

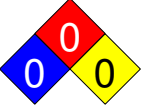

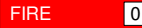

Reviewed on 02/01/2018

1 Identification

- **Product identifier**
- **Trade name:** Multi Element Standard
F, NO₂, NO₂, SO₂, Cl, PO₄, Br, ClO₂
- **Article number:** SPX508
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



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** Not Applicable
 - **Hazard pictograms** Not Applicable
 - **Signal word** Not Applicable
 - **Hazard statements** Not Applicable
 - **Precautionary statements**
If swallowed: Call a poison center/doctor if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Dispose of contents/container in accordance with local/regional/national/international regulations.
 - **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.

US

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₄, Cl, PO₄, Br, ClO₃

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Not Applicable

· **Table of Nonhazardous Ingredients**

CAS: 7647-14-5	Sodium Chloride	2.023%
CAS: 7757-82-6	Sodium Sulfate Anhydrous	1.452%
CAS: 7631-99-4	Sodium Nitrate	0.0673%
CAS: 7681-49-4	Sodium Fluoride	0.0542%
CAS: 7632-00-0	Sodium Nitrite	0.0368%
CAS: 7778-77-0	Potassium Phosphate Monobasic	0.0352%
CAS: 7647-15-6	Sodium Bromide	0.0316%
CAS: 7775-09-9	Sodium Chlorate	0.0313%
CAS: 7732-18-5	Water	96.269%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **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.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₄, Cl, PO₄, Br, ClO₃

(Contd. of page 2)

- *Dispose contaminated material as waste according to item 13.*
- **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:**

CAS: 7757-82-6	Sodium Sulfate Anhydrous	9.8 mg/m ³
CAS: 7631-99-4	Sodium Nitrate	4.1 mg/m ³
CAS: 7681-49-4	Sodium Fluoride	17 mg/m ³
CAS: 7632-00-0	Sodium Nitrite	6.4 mg/m ³
CAS: 7778-77-0	Potassium Phosphate Monobasic	9.6 mg/m ³
CAS: 7647-15-6	Sodium Bromide	12 mg/m ³
CAS: 7775-09-9	Sodium Chlorate	3.6 mg/m ³

· **PAC-2:**

CAS: 7757-82-6	Sodium Sulfate Anhydrous	110 mg/m ³
CAS: 7631-99-4	Sodium Nitrate	45 mg/m ³
CAS: 7681-49-4	Sodium Fluoride	90 mg/m ³
CAS: 7632-00-0	Sodium Nitrite	71 mg/m ³
CAS: 7778-77-0	Potassium Phosphate Monobasic	110 mg/m ³
CAS: 7647-15-6	Sodium Bromide	130 mg/m ³
CAS: 7775-09-9	Sodium Chlorate	40 mg/m ³

· **PAC-3:**

CAS: 7757-82-6	Sodium Sulfate Anhydrous	650 mg/m ³
CAS: 7631-99-4	Sodium Nitrate	270 mg/m ³
CAS: 7681-49-4	Sodium Fluoride	1,100 mg/m ³
CAS: 7632-00-0	Sodium Nitrite	240 mg/m ³
CAS: 7778-77-0	Potassium Phosphate Monobasic	630 mg/m ³
CAS: 7647-15-6	Sodium Bromide	830 mg/m ³
CAS: 7775-09-9	Sodium Chlorate	240 mg/m ³

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.*

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₂, Cl, PO₄, Br, ClO₃

(Contd. of page 3)

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:** Immediately remove all soiled and contaminated clothing.
- **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.*

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.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₂, Cl, PO₄, Br, ClO₃

(Contd. of page 4)

· Ignition temperature:	
· 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):	1.01861 g/cm ³ (8.5003 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:	
Water:	96.3 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gl
Solids content:	3.7 %
· 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.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

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

· LD/LC50 values that are relevant for classification:		
ATE (Acute Toxicity Estimate)		
Oral	LD50	185,377 mg/kg (rat)

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₄, Cl, PO₄, Br, ClO₃

(Contd. of page 5)

- **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.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 7681-49-4 Sodium Fluoride	3
--------------------------------	---

- **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:**
- Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** Not regulated

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₄, Cl, PO₄, Br, ClO₃

(Contd. of page 6)

- | | |
|--|-----------------|
| · UN proper shipping name | |
| · DOT, IATA | Not regulated |
| · IMDG | Not Regulated |
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
| · Class | Not regulated |
| · Packing group | |
| · DOT, 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):

CAS: 7632-00-0 | Sodium Nitrite

· TSCA (Toxic Substances Control Act):

Sodium Chloride

Sodium Sulfate Anhydrous

Sodium Nitrate

Sodium Fluoride

Sodium Nitrite

Potassium Phosphate Monobasic

Sodium Bromide

Sodium Chlorate

Water

· 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.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/01/2018

Reviewed on 02/01/2018

Trade name: Multi Element Standard
F, NO₂, NO₃, SO₂, Cl, PO₄, Br, ClO₃

(Contd. of page 7)

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

CAS: 7681-49-4 Sodium Fluoride

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements** Not Applicable

- **Hazard pictograms** Not Applicable

- **Signal word** Not Applicable

- **Hazard statements** Not Applicable

- **Precautionary statements**

If swallowed: Call a poison center/doctor if you feel unwell.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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:**

- **Date of preparation / last revision**

Revision 0.0, 02-01-2018: Creation date for SDS. STN

02/01/2018 / -

- **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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