

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

Issue date 05/18/2015

Reviewed on 05/18/2015

ldentification

- · Product identifier
- · Trade name: Potassium ISE Standard Solution
- Product number: 400431
- · Relevant identified uses of the substance or mixture and uses advised against
- * Product description: OStandard Solution (Low 100ppm) for Potassium (as K+)
- · Application of the substance / the mixture Buffers, Filling & Calibration Solutions
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

1725 Brannum Lane Yellow Springs, OH 45387 Phone: (937) 767-7241

Email: MSDSinfo@ysi.com website: ysi.com

Emergency Contact information: Chemtrec: (US & Canada) 800-424-9300: (International) 001 703-527-3887

Hazard(s) identificatio

· 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
- · Unknown acute toxicity:

23 percent of the mixture consists of ingredient(s) of unknown toxicity.

- Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0Fire = 0

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

Composition/information on ingredients

| CAS: 7447-40-7 | Potassium Chloride | 0.01-23% |
|-------------------------------------|--------------------|-----------|
| CAS: 7732-18-5 RTECS: ZC 0110000 | | 77-99.99% |

- · Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous Components: Non-Regulated Material

(Contd. on page 2)

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

Issue date 05/18/2015 Reviewed on 05/18/2015

Trade name: Potassium ISE Standard Solution

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.

Rinse with warm water.

If skin irritation occurs, consult a doctor.

· After eve 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
- · 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 Not required.
- · Environmental precautions: 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, acid binders, universal binders, sawdust).

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: 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.

(Contd. on page 3)

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

Issue date 05/18/2015 Reviewed on 05/18/2015

Trade name: Potassium ISE Standard Solution

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.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Breathing equipment: Not required.
- Protection of hands: Not required.
- · Material of gloves Not required.
- · Penetration time of glove material Not applicable.
- · Eve protection:



Goggles recommended during refilling.

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):** 7.0

· Change in condition

Melting point/Melting range:
 Boiling point/Boiling range:

 Flash point:
 Flammability (solid, gaseous):

 Not determined.

 100 °C (212 °F)

 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.

(Contd. on page 4)

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

Issue date 05/18/2015 Reviewed on 05/18/2015

Trade name: Potassium ISE Standard Solution

· 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**): 1.226 g/cm³ (10.231 lbs/gal)

Relative density
 Vapor density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

 Organic solvents:
 0.0 %

 Water:
 77-99.99 %

 Solids content:
 0.01-23 %

• 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.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Strong acids and strong oxidizing agents.
- · Hazardous decomposition products: Potassium Oxides and Hydrochloric acid gas.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- LD/LC50 values that are relevant for classification:

7447-40-7 Potassium Chloride

Oral LD50 2600 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: No irritating effect.
- · on the eye: No irritating effect.
- 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)

Group 1 - Carcinogenic to humans

Group 2A - Probably carcinogenic to humans

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

Issue date 05/18/2015 Reviewed on 05/18/2015

Trade name: Potassium ISE Standard Solution

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* The hazards for the aquatic environment are unknown.
- 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 known to be hazardous to 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:

Observe all federal, state and local environmental regulations when disposing of this material. Small quantities can be disposed of with household waste.

- Uncleaned packagings:
- Recommendation:

Dispose of as unused product.

Disposal must be made according to official regulations.

14 Transport information

· UN-Number

DOT, ADN, IMDG, IATAADRNon-Regulated MaterialNon-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.

(Contd. on page 6)

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

Issue date 05/18/2015 Reviewed on 05/18/2015

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· 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.

· 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.

| • | St | ate | Rig | ht | to | Know | |
|---|----|-----|-----|----|----|------|--|
| | | | | | | | |

| CAS: 7732-18-5 | water, distilled, conductivity or of similar purity | 77-99.99% |
|--------------------------|---|-----------|
| RTECS: ZC 0110000 | | |
| CAS: 7447-40-7 | Potassium Chloride | 0.01-23% |
| All ingredients are list | ed. | |

Observiced sefety assessment A Observice

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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<u>16 Other information</u>

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 05/18/2015 / -
- · 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

* * Data compared to the previous version altered.

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