100084

Safety Data Sheet

First Print Date: 06/02/2017 Revision Date: 02/16/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Liquid

Product name : ISO-H2S-2 Filling Solution

1.2. Recommended use and restrictions on use

Recommended use : An electrode filling solution for the measurement of hydrogen sulfide.

Restrictions on use : Product for industrial use only

1.3. Supplier

World Precision Instruments, LLC
175 Sarasota Center Boulevard, Sarasota, FL 34240
P: (941) 371-1003 · F: (941) 377-5428
www.wpiinc.com

1.4. Emergency telephone number

Emergency number : 1-941-371-1003

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye Irritation (Category 2B), H320

Harmful to aquatic life (Category 3), H402

Harmful to aquatic life with long lasting effects (Category 3), H412

2.2. GHS Label elements, including precautionary statements

GHS US labeling

P264: Wash thoroughly after handling. P265: Do not touch eyes. P270: Do not eat, drink or smoke when using this product. P273-Avoid release to the environment. P313 + P337: If eye irritation persists: Get medical advice/attention. P305+P338+P351: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P317: Get emergency medical help. P501-Dispose of contents/container to comply with local, state, and federal regulations.

2.3. Other hazards which do not result in classification

Contact with acids liberates toxic gas

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	%	GHS-US classification
Water	(CAS #) 7732-18-5	>90	Not Classified
Tripotassium hexacyanoferrate(III)	(CAS #) 13746-66-2	1-10	Eye Irrit. 2A ; Aquatic Acute 2; Aquatic Chronic 2; H319, H401, H411

Occupational exposure limits, if available listed in Section 8.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures

General advice : Show this material safety data sheet to the doctor in attendance

First-aid measures after inhalation : If breathed in, move person to fresh air. If not breathing, give artificial respiration. In case of discomfort, seek medical attention.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water/shower,

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses. Call in opthamologist

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. After swallowing, immediately make victim drink water (two glasses at most). Obtain emergency medical attention

4.2. Most important symptoms and effects (acute and delayed)

Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

No data available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

5.2. Specific hazards arising from the chemical

Sealed containers may rupture when heated. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : In the event of fire, wear self-contained breathing apparatus.

Further Information : Suppress(knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. For personal protection see section 8.

6.1.2. For emergency responders

Protective equipment : Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal protection".

6.2. Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3. Methods and material for containment and cleaning up

Small spills: : Contain spilled material if possible. Clay, soil or commercially available absorbents may be used. Collect in suitable and properly labelled containers.

Large spills: : Contain area to prevent spill from spreading. Minimize adverse effects on the environment. Clay, soil or commercially available absorbents may be used. Collect in suitable and properly labelled containers.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Observe directions on label and instructions for use. Avoid contact with skin and eyes.

Hygiene measures : Do not smoke. Do not eat, drink or smoke when handling this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
Tripotassium hexacyanoferrate(III)	13746-66-2	C(Skin designation)	5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Danger of cutaneous absorption		
		TWA	1 mg/m3	USA, ACGIH Threshold Limit Values (TLV)
		C	4.7 ppm 5 mg/m3	USA, NIOSH Recommended Exposure Limits
		TWA	1 mg/m3	USA, NIOSH Recommended Exposure Limits
		PEL	5 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
		PEL	1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

8.3. Individual protection measures/Personal protective equipment

Hand protection: : This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. Use chemical resistant gloves. Examples of preferred glove barrier materials include: Butyl rubber, Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, polyvinyl alcohol, Polyvinyl chloride

Eye/face protection: : Use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body protection: : Not necessary under normal use.

Respiratory protection: : If discomfort is experienced, use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: : Do not let product enter drains.

. **Personal protective equipment symbol(s):**

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Yellowish-Green
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: No data available

Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
VOC content		No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with acids liberates toxic gas.

10.2. Chemical stability

Stable under recommended conditions of storage. Product will not undergo hazardous polymerization. May discolor on exposure to light.

10.3. Possibility of hazardous reactions

Hazardous polymerization is not expected to occur. Generates dangerous gas or fumes in contact with acids.

10.4. Conditions to avoid

Do not store next to heat source, in direct sunlight, or elevated storage temperature.

10.5. Incompatible materials

Not known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	No data available
Acute toxicity (dermal)	:	No data available
Acute toxicity (inhalation)	:	No data available
Skin corrosion/irritation	:	No data available
Serious eye damage/irritation	:	No data available
Respiratory or skin sensitization	:	No data available
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	No data available
Reproductive toxicity	:	No data available
STOT-single exposure	:	No data available
STOT-repeated exposure	:	No data available
Aspiration hazard	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish	: static test LC50 – Cyprinus carpio (Carp) - > 100 mg/l – 96 h(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	: static test EC50 – Daphnia magna (Water flea) – 59 mg/l – 48 h(OECD Test Guideline 202)
Toxicity to algae	: static test ErC50 – Pseudokirchneriella subcapitata – 3.1 mg/l – 72h(OECD Test Guideline 201)
Toxicity to bacteria	: static test EC50 – activated sludge - > 1000 mg/l(OECD Test Guideline 209)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of in accordance with municipal, provincial and national regulations. No mixing with other waste.

Product/packaging disposal: Recycle where possible

SECTION 14: Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number:	Not required	Not required	Not required
UN Proper shipping name:	Not required	Not required	Not required
Transport hazard class:	Not required	Not required	Not required
Packaging group:	Not required	Not required	Not required
Marine pollutant:	Not required	Not required	Not required
Special precautions for user:	Not required	Not required	Not required

Further information : **DOT (US) -** Not dangerous goods

SECTION 15: Regulatory information

15.1. US Federal regulations

SARA 302 Components: This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components: The following component are subject to reporting levels established by SARA Title III, Section 313:

Tripotassium hexacyanoferrate(III) CAS-No. 13746-66-2 Revision Date: 07/08/2015

SARA 311/312 Hazards No SARA Hazards

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components: Tripotassium hexacyanoferrate(III) CAS-No. 13746-66-2 Revision Date: 07/08/2015

California Prop. 65 Components Which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.trpotassiumhexacyanoferrate(III)

CAS- No. 13746-66-2 Revision Date: 10/26/2018

15.2. International regulations

CANADA

No additional information available

EU-Regulations

Contains no REACH candidate substance

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. World Precision Instruments, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.wpiinc.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.