

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lugol's Iodine Solution

SYNONYMS: None

PRODUCT CODES: ES862, ES37352, Components of stain kits: ES3404, ES4807

MANUFACTURER: Azer Scientific, Inc.

ADDRESS: 701 Hemlock Rd, Morgantown, PA 19543

CHEMTREC PHONE: 800-424-9300

SUPPORT: 610-524-5810

FAX: 610-901-3046

PRODUCT USE: Laboratory use only

PREPARED BY: CB

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Specific Organ Toxicity – repeated exposure (Category 1); Acute Aquatic toxicity (Category 3)



Signal word: Danger!

| Hazard Phrases | |
|----------------|--|
| H372 | Causes damage to organs through prolonged or repeated exposure (thyroid) |
| H402 | Harmful to aquatic life. |

| Precautionary Phrases | |
|-----------------------|--|
| P280 | Wear protective gloves |
| P260 | Do not breathe dust/ fumes/ gas/ vapors/ spray. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P363 | Wash contaminated clothing before reuse. |

SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENT: | CAS NO. | % WT |
|--------------------|----------------|-------------|
| Iodine | 7553-56-2 | ≤2 |
| Potassium Iodide | 7681-11-0 | ≤4 |
| Water | 7732-18-5 | balance |

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

SKIN: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

INGESTION: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if you feel unwell.

INHALATION: Move exposed person to fresh air. Get medical attention if symptoms persist.

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABILITY OF THE PRODUCT: Not flammable

FLASH POINT: Not available

AUTOIGNITION TEMPERATURE: Not available

NFPA HAZARD CLASSIFICATION

HEALTH: 2 CHRONIC HEALTH HAZARD* FLAMMABILITY: 0 REACTIVITY: 0

OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

PROTECTION: C

EXTINGUISHING MEDIA: Use extinguishing material suitable for surrounding fire.

NOT SUITABLE: N/A

SPECIAL FIRE FIGHTING PROCEDURES: No special firefighting procedures for this solution.

HAZARDOUS DECOMPOSITION PRODUCTS: Nature of decomposition products is unknown.

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

Large spill and leak: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

STORAGE: Store in accordance with local regulations. Store in a segregated and approved area. Store in original

container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

RESPIRATORY PROTECTION: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

EYE PROTECTION: Glasses or splash goggles recommended in accordance with good industrial hygiene and safety practice.

SKIN PROTECTION: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

EXPOSURE GUIDELINES:

| Component | Source | Type | Value | Note |
|------------------|-----------|------|-----------------------------|------------------------------|
| Iodine | NIOSH | REL | 1 mg/m ³ ceiling | |
| | OSHA | PEL | 1 mg/m ³ ceiling | |
| | ACGIH TLV | STEL | 0.1 ppm | Aerosol and vapor |
| Potassium Iodide | ACGIH TLV | TWA | 0.01 ppm | Inhalable fraction and vapor |
| | ACGIH TLV | TWA | 0.01 ppm | Inhalable fraction and vapor |

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Reddish brown

ODOR: Faint odor

PHYSICAL STATE: liquid

pH AS SUPPLIED: Not available

BOILING POINT: Not available

MELTING POINT: Not available

FREEZING POINT: Not available

VAPOR PRESSURE (mmHg): Not available

VAPOR DENSITY (AIR = 1): Not available

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Soluble in water

MOLECULAR WEIGHT: Mixture

VISCOSITY: Not established

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of use.

CONDITIONS TO AVOID (STABILITY): Under normal conditions of storage and use, hazardous reactions will not occur.

INCOMPATIBILITY (MATERIAL TO AVOID): Not available

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: No known hazardous decomposition products.

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD50: Potassium iodide: 1862 mg/kg (rat)

Inhalation LC50: no data available

Dermal LD50: no data available

Other information on acute toxicity: no data available

Skin corrosion/irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.

Skin - May cause skin sensitization

Ingestion - May be harmful if swallowed.

Signs and Symptoms of Exposure: No data available.

ROUTES OF ENTRY: Skin/eye contact, inhalation, and ingestion.

TARGET ORGANS: Thyroid

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY: No known environmental toxicity.

PERSISTENCE AND DEGRADABILITY: No data available.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available.

PBT and vPvB ASSESSMENT: Not required.

SECTION 12 NOTES: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: As supplied, not regulated for waste disposal. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: Not classified

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not Regulated

TDG: Not Regulated

IATA: Not Regulated
IMDG/IMP: Not Regulated

SECTION 15: REGULATORY INFORMATION

United States

HCS Classification: Irritating material

U.S. Federal regulations:

TSCA 8(a) IUR: Partial exemption

United States inventory (TSCA 8b): Listed on inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

SARA 313 Form R - Reporting: No products were found.

DEA List I & II Chemicals

(Precursor Chemicals): Listed

RTK STATES: Iodine CAS 7553-56-2 PA, NJ, MA

California Prop. 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

CANADA

WHMIS (Canada):

Not controlled under WHMIS (Canada)

Canadian lists:

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

National Fire Protection Association (U.S.A.)



DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Azer Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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