SAFETY DATA SHEET

Creation Date Oct-2013 **Revision Date** Oct-2018 **Revision Number** 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description: **Starch Iodide Paper**
Cat No. : Q38444

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals.
Uses advised against No Information available

.3. Details of the supplier of the safety data sheet

Company Thermo Fisher Scientific India Pvt. Ltd
403-404, B-wing, Delphi, Hiranandani Business Park
Powai, Mumbai 400076, INDIA.
E-mail address laboratorysolutions@thermofisher.com

1.4. Emergency telephone number

India Toll Free:	18 00 22 22 30
Chemtrec US:	(800) 424-9300
Chemtrec EU:	001 (202) 483-7616

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Potassium Iodide]. Classified POSSIBLE for human [Zinc chloride]. Mutagenic for mammalian somatic cells. [Zinc chloride]. Mutagenic for bacteria and/or yeast. [Zinc chloride].

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE] [Potassium Iodide].

The substance may be toxic to kidneys, pancreas.

Repeated or prolonged exposure to the substance can produce target organs damage

2.2. Label elements
None

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

CAS#	Chemical Name	Percent	EINECS/ELINCS
7681-11-0	Potassium Iodide	0.5	
7646-85-7	Zinc chloride	1.33	
9005-84-9	Starch soluble	3.33	
7732-18-5	Water	94.8	

Toxicological Data on Ingredients: Potassium Iodide LD50: Not available. LC50: Not available. Zinc chloride: ORAL (LD50):
Acute: 350 mg/kg [Rat]. 329 mg/kg [Mouse].

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

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Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact:
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **Serious Inhalation:** Not available. **Ingestion:**
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. **Serious Ingestion:** Not available.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

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SECTION 5: FIREFIGHTING MEASURES

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.
Fire Fighting Media and Instructions: Not applicable.
Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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SECTION 7: HANDLING AND STORAGE

Precautions:
Keep locked up.. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray.
Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Zinc chloride
TWA: 1 STEL: 2 (mg/m3) [United Kingdom (UK)]
TWA: 1 STEL: 2 (mg/m3) from ACGIH (TLV) [United States] TWA: 1 STEL: 2 (mg/m3) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

8.2. Exposure controls

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state and appearance: Liquid.
Odor: Not available.
Taste: Not available.
Molecular Weight: Not applicable.
Color: Not available.
pH (1% soln/water): Neutral.
Boiling Point: The lowest known value is 100°C (212°F) (Water).
Melting Point: Not available.
Critical Temperature: Not available.
Specific Gravity: Weighted average: 1.01 (Water = 1)
Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water). Vapor Density: The highest known value is 0.62 (Air = 1) (Water). Volatility: Not available.
Odor Threshold: Not available. Water/Oil Dist. Coeff.: Not available. Ionicity (in Water): Not available.
Dispersion Properties: See solubility in water, methanol, acetone.
Solubility:
Easily soluble in cold water, hot water.
Soluble in methanol. Partially soluble in acetone.
Stability: The product is stable. Instability Temperature: Not available. Conditions of Instability: Incompatible materials
Incompatibility with various substances: Slightly reactive to reactive with oxidizing agents, metals.
Corrosivity: Non-corrosive in presence of glass, of copper, of stainless steel(304), of stainless steel(316).
Special Remarks on Reactivity: Incompatible with cyanides, sulfides (Zinc chloride)
Special Remarks on Corrosivity: Not available.
Polymerization: Yes.

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

10.3. Possibility of hazardous reactions

Hazardous Polymerization
Hazardous Reactions

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Routes of Entry: Absorbed through skin. Eye contact.
Toxicity to Animals: Acute oral toxicity (LD50): 329 mg/kg [Mouse]. (Zinc chloride).
Chronic Effects on Humans:
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Potassium Iodide].
Classified POSSIBLE for human [Zinc chloride]. Mutagenic for mammalian somatic cells. [Zinc chloride]. Mutagenic for bacteria and/or yeast. [Zinc chloride].
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE] [Potassium Iodide].
Contains material which may cause damage to the following organs: kidneys, pancreas.
Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose[Rat] - Route: Inhalation; Dose: 1960 mg/m3/10M (Zinc chloride)
Special Remarks on Chronic Effects on Humans:
Contains Zinc chloride and Potassium Iodide which may affect genetic material (mutagenic)
cause adverse reproductive efects and birth defects(teratogenic) based on animal data. Also, Zinc Chloride may cause cancer based on animal data.
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects:
Skin: May cause skin irritation. Eyes: May cause eye irritation.
Inhalation: May cause respiratory tract irritation.
Ingestion: May cause digestive tract irritation with nausea, vomiting, diarrhea, abdominal pain. Contains Zinc Chloride which may affect behavior/Central nervous system (central nervous system depression), the urinary system (kidney damage - hematuria, oliguria, renal failure), cardiovascular system, respiration (dyspnea), metabolism, pancreas (elevated amylase, and glucose levels)and blood (changes in red blood cell count and in serum compostion).

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Ecotoxicity: Not available. **BOD5 and COD:** Not available. **Products of Biodegradation:**
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
Special Provisions for Transport: Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Federal and State Regulations:
Connecticut hazardous material survey.: Zinc chloride
Illinois toxic substances disclosure to employee act: Zinc chloride
Illinois chemical safety act: Zinc chloride
New York release reporting list: Zinc chloride

Rhode Island RTK hazardous substances: Zinc chloride
Pennsylvania RTK: Zinc chloride Minnesota: Zinc chloride
Massachusetts RTK: Zinc chloride Massachusetts spill list:
Zinc chloride New Jersey: Zinc chloride
New Jersey spill list: Zinc chloride
Louisiana spill reporting: Zinc chloride
TSCA 8(b) inventory: Potassium Iodide; Zinc chloride; Starch soluble; Water
CERCLA: Hazardous substances.: Zinc chloride: 1000 lbs. (453.6 kg);
Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other Classifications:
WHMIS (Canada): Not controlled under WHMIS (Canada).
DSCL (EEC):
R40- Possible risks of irreversible effects.
S2- Keep out of the reach of children.
S36/37- Wear suitable protective clothing and gloves.
HMIS (U.S.A.): Health Hazard: 2
Fire Hazard: 0
Reactivity: 0
Personal Protection: h
National Fire Protection Association (U.S.A.): Health: 2
Flammability: 0
Reactivity: 0
Specific hazard: Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

15.2. Chemical safety assessment

SECTION 16: OTHER INFORMATION

Creation Date	Oct-2013
Next Revision Date	Oct-2023
Revision Summary	SDS section 1 updated and update of Format

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet