

Safety Data Sheets

Flow Cytometric Potassium Channel Assay Kit -

Catalog No: 11015

Thallos AM



SECTION 1: Identification of the Substances and the Company/Undertaking

Identification of the Substance or Mixture **Product Name:** Thallos AM **CAS No:** 1802991-71-4 **Catalog No:** 1381

Company/Undertaking Identification

Ion Biosciences
3055 Hunter Road, Box 3
San Marcos, TX 78666
+1 512.957.9123

24 hour Emergency Response

866.536.0631
301.431.8585
+1 301.431.8585 (Outside the U.S.)
For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards Identification

GHS - Classification

Signal word: None
Health Hazards: Not classified
Hazard statements: Not applicable

Precautionary Statements

Prevention: Not applicable
Response: Not applicable
Storage: Not applicable
Disposal: Not applicable.

Inhalation: May be harmful by inhalation.

Ingestion: May be harmful if swallowed.

Specific Effects

Carcinogenic effects: No Information available.
Mutagenic effects: No Information available. .
Reproductive toxicity: No Information available. .
Sensitization: No Information available. .
Target organ effects: No known effects under normal use conditions.

Principle Routes of Exposure

Potential Health Effects

Eyes: May cause eye irritation with susceptible persons.
Skin: May cause skin irritation with susceptible persons.

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/Information on Ingredients

The product contains no substances which, at their given concentration, are considered to be hazardous to health.

SECTION 4: First Aid Measures

Skin contact: Rinse cautiously with water for several minutes. Immediate medical attention is not required.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

Inhalation: Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed:
Not applicable

Notes to physician: Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media: Dry chemical. Carbon Dioxide (CO₂) Foam.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Not known.

Advice for firefighters: Standard procedure for chemical fires.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

Environmental precautions: Avoid discharge into drains and waterways whenever possible.

Methods and material for containment and cleaning up: Take up mechanically, place in appropriate containers for disposal.

Reference to other sections: See section 8 and 12 for more information.

SECTION 7: Handling and Storage

Handling: Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities: Store at -20°C. Protect from light and moisture.

Specific end use(s): For research use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Exposure limits: We are not aware of any national exposure limit.

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Exposure Controls

Personal Protective Equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable chemical-resistant gloves.

Eye protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Do not let product enter drains or waterways whenever possible

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties.

Form: Solid.

Appearance: No data available.

Odor: No data available.

Odor threshold: No data available.

Boiling point/boiling range: °C No data available; °F No data available.

Melting point/melting range: °C No data available; °F No data available.

Flash point: °C No data available; °F No data available.

Autoignition temperature: °C No data available; °F No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Oxidizing properties: No data available.

Partition coefficient (n-octanol/water): No data available.

Water solubility: No data available.

SECTION 10: Stability and Reactivity

Reactivity: No data available.

Stability: Stable under normal conditions.

Materials to avoid: No dangerous reactions known.

Possibility of hazardous reactions: No data available.

Hazardous decomposition products: Stable under normal use conditions.

Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: None under normal processing.

SECTION 11: Toxicological Information

Acute Toxicity: To the best of our knowledge, the chemical, physical, biological, and toxicological properties of this product have not been thoroughly investigated.

Principle Routes of Exposure

Potential Health Effects

Eyes: May cause eye irritation in susceptible persons.

Skin: May cause skin irritation in susceptible persons

Inhalation: May be harmful by inhalation.

Ingestion: May be harmful by if swallowed.

Carcinogenic effects: No data available.

Mutagenic effects: No known mutagenic effects.

Reproductive toxicity: No data available.

Sensitization: No Data available.

SECTION 12: Ecological Information

Ecotoxicity: Environmental impact has not been fully investigated

Chronic aquatic toxicity: No data available.

Mobility: No data available.

Biodegradation: Inherently biodegradable.

Bioaccumulation: Does not accumulate.

SECTION 13: Disposal Considerations

Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport Information

IATA/ADR/DOT-US/IMDG: Not Classified as dangerous in the meaning of transport regulations.

Proper shipping name: No dangerous good in sense of these transport regulations.

Hazard class: None.

Subsidiary class: None.

Packing group: None.

UN-No: None.

Environmental hazards: None.

SECTION 15: Regulatory Information

US Federal Regulations

SARA 313: This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain HAPs.

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class: Non-controlled. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other Information

For Research Use Only. Not for use in diagnostic procedures.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

Safety Data Sheet

DMSO



SECTION 1: Identification of the Substances and the Company/Undertaking

Identification of the Substance or Mixture

Product Name: DMSO **Catalog Numbers:** N/A

Company/Undertaking Identification

Ion Biosciences
3055 Hunter Road, Box 3
San Marcos, TX 78666
+1 512.957.9123

24 hour Emergency Response

866.536.0631
301.431.8585
+1 301.431.8585 (Outside the U.S.)
For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards Identification

GHS - Classification

Signal word: Warning
Health Hazards: Rapidly absorbed through skin.
Hazard statements: H227 - Combustible liquid.

Skin: Slightly hazardous, irritant and permeator
Inhalation: Slightly hazardous, lung irritant
Ingestion: Slightly hazardous

Precautionary Statements

Prevention: P210 - Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. P280 - Wear protective gloves/ eye protection/ face protection.
Response: P370+P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage: P403+P235 - Store in a well-ventilated place. Keep cool.
Disposal: P501 - Dispose of contents/ container to an approved waste disposal plant.

Specific Effects

Carcinogenic effects: None.
Mutagenic effects: None.
Reproductive toxicity: None.
Sensitization: None.
Target organ effects: May cause damage through prolonged exposure.

Principle Routes of Exposure

HMIS

Potential Health Effects

Eyes: Slightly hazardous, irritant

Health	0
Flammability	4
Reactivity	0

SECTION 3: Composition/Information on Ingredients

Handle all chemicals with caution.

Component	CAS-No	EINECS-No	Weight%
DMSO	67-68-5	200-64-3	100

SECTION 4: First Aid Measures

Skin contact: Take off immediately all contaminated clothing. Rinse cautiously with water for several minutes. If symptoms occur, obtain medical advice.

Inhalation: Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed:
H302 - Harmful if swallowed, H316 - Causes mild skin irritation

Ingestion: After swallowing: make victim drink water (two glasses at most). If symptoms persist, call a physician. Do not induce vomiting without medical advice.

Notes to physician: Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide (CO₂) Foam.

Unsuitable extinguishing media: No limits given.

Specific hazards arising from the chemical: Carbon oxides, Sulfur oxides. Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters: Wear self-contained breathing apparatus

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Do not breathe vapors, aerosols. Keep away from heat and sources of ignition. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

Environmental precautions: Do not let product enter drains.

Methods and material for containment and cleaning up: Cover drains. Soak up with inert absorbent material and dispose of as hazardous waste.

Reference to other sections: See section 8 and 12 for more information.

SECTION 7: Handling and Storage

Handling: Always wear recommended Personal Protective Equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene: Change contaminated clothing. Wash hands after working with substance.

Conditions for safe storage, including any incompatibilities: Keep tightly closed in a dry, cool and well-ventilated place. Store under inert gas.

Specific end use(s): For research use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Exposure limits:

OSHA PEL	OSHA PEL	ACGIH OEL	ACGIH OEL
Dimethyl Sul-	None	250ppm	None

Engineering measures: Ensure adequate ventilation, especially in confined areas. Change contaminated clothing. Wash hands after working with substance.

Exposure Controls

Personal Protective Equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Impervious gloves.

Eye protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Do not allow material to contaminate ground water system. Prevent product from entering drains or waterways whenever possible.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties.

Form: Liquid.

Appearance: Clear solution.

Odor: Odorless.

Odor threshold: No data available.

Boiling point/boiling range: 189°C; 372°F

Melting point/melting range: 16-19°C; 61-66°F

Flash point: 87°C; 189°F

Autoignition temperature: 300-302°C; 572-576°F

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Oxidizing properties: None.

Partition coefficient (n-octanol/water): log Pow: -1.35 at 20 °C (68 °F) - Bioaccumulation is not expected.

Water solubility: Completely miscible.

pH: Not applicable.

SECTION 10: Stability and Reactivity

Reactivity: Forms explosive mixtures with air on intense heating.

Stability: Stable under normal conditions.

Materials to avoid: Various plastics, metals

Possibility of hazardous reactions: Risk of explosion with: acetylidene organic halides perchlorates Acid chlorides nonmetallic halides iron(III) compounds nitrates fluorides chlorates hydrides perchloric acid Oxides of phosphorus Nitric acid silver compounds silicon compounds silanes acid halides Exothermic reaction with: boron compounds oxyhalogenic compounds Potassium sodium Strong oxidizing agents phosphorus halides strong reducing agents Acid chlorides Strong acids silver salt nitrogen dioxide

Hazardous decomposition products: None under normal use conditions.

Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Strong heating.

Hazardous decomposition products: In the event of fire, see section 5.

SECTION 11: Toxicological Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
DMSO	28300mg/kg	40000mg/kg	4h—5.33mg/

Skin: (Rabbit) Slight irritation –4h

Inhalation: Harmful by inhalation.

Ingestion: Harmful if swallowed.

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

Additional Information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Acute Toxicity:

Principle Routes of Exposure

Potential Health Effects

Eyes: (Rabbit) Slight irritation –24h

SECTION 12: Ecological Information

Ecotoxicity: Zebra fish (25,000mg/L-96h), Water flea (24,600mg/L-48h), algae (17000mg/L-72h)

Chronic aquatic toxicity: No data available.

Mobility: No data available.

Biodegradation: Not readily biodegradable.

Bioaccumulation: No data available.

SECTION 13: Disposal Considerations

Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport Information

IATA/ADR/DOT-US/IMDG: NA-Number: 1993, Class: None

Packing group: None.

Proper shipping name: Combustible liquid, n.o.s. (dimethyl sulfoxide)

UN-No: None.

Hazard class: None.

Environmental hazards: None.

Subsidiary class: None.

SECTION 15: Regulatory Information

US Federal Regulations

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain HAPs.

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

SECTION 16: Other Information

For Research Use Only. Not for use in diagnostic procedures.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

Safety Data Sheet



100X Pluronic F-127

SECTION 1: Identification of the Substances and the Company/Undertaking

Identification of the Substance or Mixture

Product Name: 100X Pluronic F-127

Catalog Numbers: 7601A

Company/Undertaking Identification

Ion Biosciences
3055 Hunter Road, Box 3
San Marcos, TX 78666

24 hour Emergency Response

866.536.0631
301.431.8585
+1 301.431.8585 (Outside the U.S.)

SECTION 2: Hazards Identification

GHS - Classification

Signal word: None.

Health Hazards: None.

Physical Hazards: None.

Environmental Hazards: None.

Hazard statements: None.

Precautionary Statements

Prevention: None.

Response: None.

Storage: None.

Disposal: None.

Potential Health Effects

Eyes: No data available.

Skin: No data available.

Inhalation: No data available.

Ingestion: No data available.

Specific Effects

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

Target organ effects: No information available.

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/Information on Ingredients

Handle all chemicals with caution.

Component	CAS-No	EINECS-No	Weight%
Poloxamer 188/407	9003-11-6	-	Withheld

SECTION 4: First Aid Measures

Skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Get medical advice/attention if you feel unwell. Rinse mouth.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Most important symptoms and effects, both acute and delayed: No data available.

Notes to physician: No data available.

Indication of any immediate medical attention and special treatment needed: No data available.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide (CO₂) Foam.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: Carbon oxides

Advice for firefighters: Wear self-contained breathing apparatus if possible.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

Environmental precautions: Do not let product enter drains.

Methods and material for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste.

Reference to other sections: See section 8 for more information.

SECTION 7: Handling and Storage

Handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities: Keep in a dry, cool and well-ventilated place.

Specific end use(s): For research use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Exposure limits:

OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
None	None	None	None

Engineering measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Exposure Controls

Personal Protective Equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable chemical-resistant gloves.

Eye protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties.

Form: Liquid.

Appearance: Clear solution.

Odor: No data available.

Odor threshold: No data available.

Boiling point/boiling range: °C No data available; °F No data available.

Melting point/melting range: °C No data available; °F No data available.

Flash point: °C No data available; °F No data available.

Autoignition temperature: °C No data available; °F No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Oxidizing properties: No data available.

Partition coefficient (n-octanol/water): No data available.

Water solubility: No data available.

pH: No data available.

SECTION 10: Stability and Reactivity

Reactivity: No data available.

Stability: Stable under normal conditions.

Materials to avoid: Strong oxidizing agents.

Possibility of hazardous reactions: No data available.

Hazardous decomposition products: Carbon oxides

Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: No data available.

SECTION 11: Toxicological Information

Acute Toxicity:

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Poloxamer 188/407	15000mg/kg	20000mg/kg	No data

Skin: (Rabbit) Mild skin irritation—24h

Inhalation: No data available.

Ingestion: Possible diarrhea and weakness.

Carcinogenic effects: No data available.

Mutagenic effects: No known mutagenic effects.

Reproductive toxicity: No data available.

Sensitization: (Rabbit) None.

Additional Information: RTECS: MD0911050

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Principle Routes of Exposure

Potential Health Effects

Eyes: (Rabbit) Mild eye irritation – 24h

SECTION 12: Ecological Information

Ecotoxicity: Toxicity to fish (>10,000mg/L–96h).

Chronic aquatic toxicity: No data available.

Mobility: No data available.

Biodegradation: No data available.

Bioaccumulation: Unlikely.

SECTION 13: Disposal Considerations

Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport Information

IATA/ADR/DOT-US/IMDG: Not Classified as dangerous in the meaning of transport regulations.

Proper shipping name: None.

Hazard class: None.

Subsidiary class: None.

Packing group: None.

UN-No: None.

Environmental hazards: None.

SECTION 15: Regulatory Information

US Federal Regulations

SARA 313: This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain HAPs.

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class: Non-controlled.

SECTION 16: Other Information

For Research Use Only. Not for use in diagnostic procedures.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

Safety Data Sheet



10X Brilliant Thallium Snapshot Assay Buffer

SECTION 1: Identification of the Substances and the Company/Undertaking

Identification of the Substance or Mixture **Product Name:** 10X Brilliant Thallium Snapshot Assay Buffer **Catalog Numbers:** 7010T-S

Company/Undertaking Identification

Ion Biosciences
3055 Hunter Road, Box 3
San Marcos, TX 78666

24 hour Emergency Response

866.536.0631
301.431.8585
+1 301.431.8585 (Outside the U.S.)
For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards Identification

GHS - Classification

Signal word: None.
Health Hazards: Not hazardous.
Physical Hazards: Not hazardous.
Environmental Hazards: Not hazardous.
Hazard statements: None.

Precautionary Statements

Prevention: None.
Response: None.
Storage: None.
Disposal: None.

Potential Health Effects

Eyes: No data available.
Skin: No data available.
Inhalation: No data available.
Ingestion: No data available.

Specific Effects

Carcinogenic effects: None.
Mutagenic effects: None.
Reproductive toxicity: None.
Sensitization: None.
Target organ effects: No data available.

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/Information on Ingredients

Handle all chemicals with caution.

Component	CAS-No	EINECS-No	Weight%
HHBSS	-	-	Withheld

SECTION 4: First Aid Measures

Skin contact: Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Get medical advice/attention if you feel unwell. Rinse mouth.

Inhalation: Get medical advice/attention if you feel unwell.

Most important symptoms and effects, both acute and delayed: No data available.

Notes to physician: Treat symptomatically.

Indication of any immediate medical attention and special treatment needed: No data available.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide (CO₂) Foam.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: Not known.

Advice for firefighters: Standard procedure for chemical fires.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

Environmental precautions: No special environmental precautions required.

Methods and material for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste.

Reference to other sections: See section 8 for more information.

SECTION 7: Handling and Storage

Handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities: Keep in a dry, cool and well-ventilated place.

Specific end use(s): For research use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Exposure limits:

OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
None	None	None	None

Engineering measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Exposure Controls

Personal Protective Equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable chemical-resistant gloves.

Eye protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: No special environmental precautions required.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties.

Form: Liquid.

Appearance: Clear solution.

Odor: No data available.

Odor threshold: No data available.

Boiling point/boiling range: °C No data available; °F No data available.

Melting point/melting range: °C No data available; °F No data available.

Flash point: °C No data available; °F No data available.

Autoignition temperature: °C No data available; °F No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Oxidizing properties: No data available.

Partition coefficient (n-octanol/water): No data available.

Water solubility: No data available.

pH: 7.3

SECTION 10: Stability and Reactivity

Reactivity: No data available.

Stability: Stable under normal conditions.

Materials to avoid: No data available.

Possibility of hazardous reactions: No data available.

Hazardous decomposition products: No data available.

Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: No data available.

SECTION 11: Toxicological Information

Acute Toxicity:

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
HHBSS	No data	No data	No data

Skin: No data available.

Inhalation: No data available.

Ingestion: No data available.

Carcinogenic effects: No data available.

Mutagenic effects: No data available.

Reproductive toxicity: No data available.

Sensitization: No data available.

Additional Information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Principle Routes of Exposure

Potential Health Effects

Eyes: No data available.

SECTION 12: Ecological Information

Ecotoxicity: Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Chronic aquatic toxicity: No data available.

Mobility: No data available.

Biodegradation: No data available.

Bioaccumulation: No data available.

SECTION 13: Disposal Considerations

Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport Information

IATA/ADR/DOT-US/IMDG: Not Classified as dangerous in the meaning of transport regulations.

Proper shipping name: None.

Hazard class: None.

Subsidiary class: None.

Packing group: None.

UN-No: None.

Environmental hazards: None.

SECTION 15: Regulatory Information

US Federal Regulations

SARA 313: This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain HAPs.

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class: Non-controlled.

SECTION 16: Other Information

For Research Use Only. Not for use in diagnostic procedures.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

Safety Data Sheet



50mM Thallium Sulfate

SECTION 1: Identification of the Substances and the Company/Undertaking

Identification of the Substance or Mixture

Product Name: 50mM Thallium Sulfate **Catalog Numbers:** 7040S

Company/Undertaking Identification

Ion Biosciences
3055 Hunter Road, Box 3
San Marcos, TX 78666

24 hour Emergency Response

866.536.0631
301.431.8585
+1 301.431.8585 (Outside the U.S.)

SECTION 2: Hazards Identification

GHS - Classification

Signal word: DANGER

Health Hazards: Acute oral toxicity (Category 4), skin corrosion/irritation (Category 3), Specific target organ systemic toxicity (repeated exposure) (Category 1)

Hazard statements: H302 - Harmful if swallowed, H316 - Causes mild skin irritation, H372 - Causes damage to organs through prolonged or repeated exposure, H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention: P260 - Do not breathe dust/fume/gas/mist/vapors/spray, P264 - Wash hands thoroughly after handling, P270 - Do not eat, drink or smoke when using this product, P273 - Avoid release to the environment

Response: P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, P314 - Get medical advice/attention if you feel unwell, P330 - Rinse mouth, P332 + P313 - If skin irritation occurs: Get medical advice/attention

Storage: Not applicable.

Potential Health Effects

Eyes: May cause eye irritation with susceptible persons.

Skin: Irritating to skin.

Inhalation: Harmful by inhalation.

Ingestion: Harmful if swallowed.

Specific Effects

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

Target organ effects: No information available.

HMIS

Health	4 *Chronic Hazard
Flammability	0
Reactivity	0

SECTION 3: Composition/Information on Ingredients

Handle all chemicals with caution.

Component	CAS-No	EINECS-No	Weight%
Thallous sulfate	7446-18-6	231-138-1 231-201-3	1-5

SECTION 4: First Aid Measures

Skin contact: Rinse cautiously with water for several minutes. If symptoms occur, obtain medical advice.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Ingestion: Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

Inhalation: Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Most important symptoms and effects, both acute and delayed: H302 - Harmful if swallowed, H316 - Causes mild skin irritation, H372 - Causes damage to organs through prolonged or repeated exposure, H412 - Harmful to aquatic life with long lasting effects.

Notes to physician: Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide (CO₂) Foam.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Not known.

Advice for firefighters: Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system.

Methods and material for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste.

Reference to other sections: See section 8 and 12 for more information.

SECTION 7: Handling and Storage

Handling: Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities: Keep in a dry, cool and well-ventilated place.

Specific end use(s): For research use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Exposure limits:

OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
0.1 mg/m ³	None	0.02mg/m ³	None

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Exposure Controls

Personal Protective Equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Impervious gloves.

Eye protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Do not allow material to contaminate ground water system. Prevent product from entering drains or waterways whenever possible.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties.

Form: Liquid.

Appearance: No data available.

Odor: No data available.

Odor threshold: No data available.

Boiling point/boiling range: °C No data available; °F No data available.

Melting point/melting range: °C No data available; °F No data available.

Flash point: °C No data available; °F No data available.

Autoignition temperature: °C No data available; °F No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Oxidizing properties: No data available.

Partition coefficient (n-octanol/water): No data available.

Water solubility: No data available.

pH: 6-8

SECTION 10: Stability and Reactivity

Reactivity: None known.

Stability: Stable under normal conditions.

Materials to avoid: No dangerous reaction known under conditions of normal use.

Possibility of hazardous reactions: Hazardous reaction has not been reported.

Hazardous decomposition products: None under normal use conditions.

Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: None under normal processing.

Hazardous decomposition products: No hazardous decomposition products produced under conditions of normal use.

SECTION 11: Toxicological Information

Acute Toxicity:

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Thallous sulfate	16mg/kg	550mg/kg	No data

Skin: Irritating to skin.

Inhalation: Harmful by inhalation.

Ingestion: Harmful if swallowed.

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

Principle Routes of Exposure

Potential Health Effects

Eyes: May cause eye irritation with susceptible persons.

SECTION 12: Ecological Information

Ecotoxicity: The environmental impact of this product has not been fully investigated.

Chronic aquatic toxicity: Category 3

Mobility: No information available.

Biodegradation: Inherently biodegradable.

Bioaccumulation: Does not bioaccumulate.

SECTION 13: Disposal Considerations

Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport Information

IATA/ADR/DOT-US/IMDG: Not Classified as dangerous in the meaning of transport regulations.

Proper shipping name: No dangerous good in sense of these transport regulations.

Hazard class: None.

Subsidiary class: None.

Packing group: None.

UN-No: None.

Environmental hazards: None.

SECTION 15: Regulatory Information

US Federal Regulations

SARA 313: This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers:

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain HAPs.

Chemical Name	CAS- No	Weight %	Sara 313—Threshold Values
Thallous sulfate	7446-18-6	1-5	1.0

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class: D2B—Toxic materials

SECTION 16: Other Information

For Research Use Only. Not for use in diagnostic procedures.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"