SAFETY DATA SHEET

1. Identification

1.1.	GHS product identifier	Propidium Iodide Solution
	Product code	2706505
	Other means of identification	Not available.
	Product type	Liquid.
1.2.	Relevant identified uses of the substance or mixture and uses advised against	
	Product use	Research.
	Area of application	Industrial applications.
1.3.	Supplier Address Telephone, fax, email	SONY BIOTECHNOLOGY INC. 1730 North First Street, San Jose, CA 95112 U.S.A. Voice: +1 800-275-5963, FAX: +1 408-352-4130, SBTcustomerservice@sonybiotechnology.com
1.4.	e-mail address of person responsible for this SDS	SBTcustomerservice@sonybiotechnology.com
1.5.	Emergency telephone number	US: +1 800-275-5963 (6:00AM – 5:30PM PT, M-F)

2. Hazards Identification

2.1.	OSHA/HCS status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
2.2.	Classification of the substance or mixture	Not classified.
2.3.	GHS Label elements	
	Signal word	No signal word.
	Hazard statements	No known significant effects or critical hazards.
2.4.	Precautionary statements	
	Prevention	Not applicable.
	Response	Not applicable.
	Storage	Not applicable.
	Disposal	Not applicable.
2.5.	Hazards not otherwise classified	None known.

3. Composition/Information on Ingredients

3.1.	Substance/mixture	Mixture
3.2.	Other means of identification	Not available.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

4. First Aid Measures

4.1. Description of necessary first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards..
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

5. Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet.

5.2. Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
5.3. Hazardous thermal decomposition products	No specific data.

5.4. Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
5.5. Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.2. Methods and materials for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

7.1. Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2. Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8. Exposure Controls / Personal Protection

8.1. Control parameters

Occupational exposure limits	None.

Appropriate engineering controls	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

8.2. Individual protection measures

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

9. Physical and Chemical Properties

Appearance	
Physical state	Liquid. [Clear.]
Color	Colorless. to Pink
Odor	Not available.
Odor threshold	Not available.
pH	7
Melting point	Not available.
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Density	Not available.
Solubility	Not available.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Not available.
Flow time (ISO 2431)	Not available.

10. Stability and Reactivity

10.1. Reactivity	No specific test data related to reactivity available for this product or its ingredients.
10.2. Chemical stability	The product is stable.
10.3. Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
10.4. Conditions to avoid	No specific data.
10.5. Incompatible materials	No specific data.
10.6. Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

11.1. Information on toxicological effects

Acute toxicity	Not available.
Irritation/Corrosion	Not available.
Sensitization	Not available.
Mutagenicity Conclusion/Summary	Not available.
Carcinogenicity Conclusion/Summary	Not available.
Reproductive toxicity Conclusion/Summary	Not available.
Teratogenicity Conclusion/Summary	Not available.
Specific target organ toxicity (single exposure)	Not available.
Specific target organ toxicity (repeated exposure)	Not available.
Aspiration hazard	Not available.
Information on the likely routes of exposure	Not available.
Potential acute health effects	
Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

11.2. Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data..

11.3. Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
Long term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
Potential chronic health effects	Not available.
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.4. Numerical measures of toxicity

Acute toxicity estimates	Not available.

12. Ecological Information

12.1. Toxicity	Not available.
12.2. Persistence and degradability	Not available.
12.3. Bioaccumulative potential	Not available.
12.4. Mobility in soil Soil/water partition coefficient (Koc)	Not available.
12.5. Other adverse effects	No known significant effects or critical hazards.

13. Disposal Considerations

Disposal methods	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material

Disposal methods	and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil,waterways, drains and sewers.

14. Transport Information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	–	–	–
Transport hazard class(es)	–	–	–
Packing group	–	–	–
Environmental hazards	No.	No.	No.
Additional information	–	–	–

14.1. Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
14.2. Transport in bulk according to Annex II of MARPOL and the IBC Code	Not available.

15. Regulatory Information

U.S. Federal regulations	United States inventory (TSCA 8b): Not determined.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not listed
Clean Air Act Section 602 Class I Substances	Not listed
Clean Air Act Section 602 Class II Substances	Not listed
DEA List I Chemicals (Precursor Chemicals)	Not listed
DEA List II Chemicals (Essential Chemicals)	Not listed

SARA 302/304
Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
sodium azide	≤0.1	Yes.	500	–	1000.	–

SARA 304 RQ	1111111.1 lbs / 504444.4 kg
SARA 311/312 Classification	Not applicable.

Composition/information on ingredients	No products were found.
SARA 313	Not applicable.

15.2. State Regulations

Massachusetts	None of the components are listed.
New York	None of the components are listed.
New Jersey	None of the components are listed.
Pennsylvania	None of the components are listed.
California Prop. 65	None of the components are listed.

15.3. International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals	Not listed.
Montreal Protocol (Annexes A, B, C, E)	Not listed.
Stockholm Convention on Persistent Organic Pollutants	Not listed.
Rotterdam Convention on Prior Informed Consent (PIC)	Not listed.
UNECE Aarhus Protocol on POPs and Heavy Metals	Not listed.

16. Other Information

16.1. Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.
The customer is responsible for determining the PPE code for this material.

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

Health	0
Flammability	0
Instability/Reactivity	0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

16.3. Procedure used to derive the classification

Classification	Not classified.

Justification	
16.4. History	
Date of issue/Date of revision	03/31/2017
Date of previous issue	No previous validation
Version	1
Prepared by	Sphera Solutions
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	HCS (U.S.A.)- Hazard Communication Standard International transport regulations

This SDS was created in good faith based on our current knowledge at the time of creation and revision, but no warranty is made on the information, hazards, and toxicity data described. Prior to use, be sure to examine the latest information, rules, laws, and regulations of your country or region concerning hazards and harmful effects as well as regarding equipment to be used, and accord the highest priority to them.

The precautions described in this document assume normal handling of the product. When handling the product in an unconventional manner, be sure to take appropriate safety measures according the situation and take sufficient precautions.

All chemical products should be handled assuming the presence of "unknown hazards and harmful effects" and with the knowledge that such hazards will vary greatly depending on the usage environment, handling method, and conditions and period of storage. All handling of the product, including use, unpacking, storage, and disposal, should be performed only by specialists with professional knowledge and experience or under close supervision of such qualified specialists.
It is the sole responsibility of the user to ensure and provide proper safe use conditions.

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