BIOSPECTRA

Safety Data Sheet
Hydrogen Chloride in 2-propanol solution

Section 1: Identification

1.1 Product Identifiers

Product Name: Hydrogen Chloride in 2-propanol solution
Catalog Numbers: IH4101
CAS# 7647-01-0 / 67-63-0
RTECS#: NA

1.2 Recommended Use of the Chemical and restrictions of Use

Chemical manufacturing

1.3 Supplier Details

BioSpectra, Inc.
100 Majestic Way
Bangor, PA 18013
610.599.3400

1.4 Emergency Numbers

US & Canada: 1-800-424-9300
Outside the US & Canada: +1 703-527-3887

Section 2: Hazard Identification

2.1 Classification of Substance or Mixture

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

Flammable liquids (Category 2) H225
Eye irritation (Category 2A) H319
Specific target organ toxicity - single exposure (Category 3), Central nervous system H336

2.2 GHS Label Elements Including Precautionary Statements

Pictogram:

Signal Word: Danger

Hazard Statement(s):

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statement(s)

P210	Keep away from heat/ sparks/ open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static charge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use dry sand. Dry chemical or alcohol-resistant foam for extinction.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in well-ventilated place. Keep cool.

P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not Classified or not Covered by the GHS

Not Available.

Section 3: Composition, Information on Ingredients

3.1 Substances

Synonyms: Hydrochloric acid in 2-Propanol
Formula: HCl / C_3H_8O
Molecular Weight: 36.46 / 60.10 g/mol
CAS#: 7647-01-0 / 67-63-0

Component	Classification	Concentration
2-Propanol CAS-No. 67-63-0 EC-No. 200-661-7	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; H225, H319, H336	</= 100%

EC#: N/A

Section 4: First Aid Measures

4.1 Description of necessary first aid measures

General Advice: Consult a physician. Show this safety data sheet to the treating physician.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lift the upper and lower lids. Consult a physician.
Skin: Immediately flush skin with plenty water for at least 15 minutes. Remove contaminated clothing and shoes. Consult a physician if irritation develops or persists.
Serious Skin Contact: Wash with disinfectant soap and cover contaminated ski with antibacterial cream. Consult a physician.
Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. If person is awake, rinse mouth out with water. Consult a physician.
Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician if cough or other symptoms appear.

4.2 Most Important symptoms/effects, acute and delayed

Refer to Section 2.2 for Precautionary Statements if any are applicable

4.3 Indication of Immediate Medical Attention and Special Treatment

No information available

Section 5: Firefighting Measures

5.1 Extinguishing media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific Hazards Associated with this Chemical

Carbon oxides, Hydrogen chloride gas.

5.3 Special Equipment/Precautions for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

5.4 Other information

None available

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Contain spillage. Collect with an electrically protected vacuum cleaner or by wet-brushing. Place in container for disposal according to local regulations.

6.4 Other information

None available

Section 7: Handling and Storage

7.1 Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent build-up of electrostatic charge.

7.2 Conditions for Storage Including any Incompatibilities

Store in a dry, well-ventilated area away from incompatible and combustible substances. Keep containers tightly closed.

7.3 Other information

None available

Section 8: Exposure Controls, Personal Protection

8.1 Control Parameters

Component	CAS-No.	Value	Control Parameters	Basis
2-Propanol	67-63-0	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
2-Propanol	Remarks	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
Hydrogen Chloride	7647-01-0	STEL	400 ppm	USA. ACGIH Threshold Limit Values (TLV)
Hydrogen Chloride	Remarks	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
2-Propanol	67-63-0	PEL	400 ppm 980 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
2-Propanol	67-63-0	The value in mg/m3 is approximate.		
2-Propanol	67-63-0	TWA	400 ppm 980 mg/m3	USA. NIOSH Recommended Exposure Limits
2-Propanol	67-63-0	STEL	500 ppm 1,225 mg/m3	USA. NIOSH Recommended Exposure Limits

Biological Occupational Exposure Limits

Component	CAS-No.	Parameters	Control Parameters	Biological Specimen	Basis
2-Propanol	67-63-0	Acetone	40 mg/L	Urine	ACGIH - Biological Exposure Indices (BEI)
2-Propanol	Remark	End of shift at end of the work week			

8.2 Engineering Controls

Handle using good industrial hygiene and safety practices.

8.3 Personal protective measures

Respiratory protection: If risk assessment shows air-purifying respirators are needed use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand 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. Wear impervious gloves. Wash and dry hands.

Eye protection: Face shield and safety glasses with side-shields conforming to ANSI- Z87 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

Section 9: Physical and Chemical Properties

Physical State: Liquid	**Melting point:** Not available
Appearance: Not available	**Boiling Point:** Not available
Odor: Not available	**Decomposition Temperature:** Not available
pH: Not available	**Specific Gravity/Density:** Not available
Flash Point: 12° C (54 °F)- closed cup	**Solubility:** Miscible with water
Vapor Density: Not available	**Molecular Formula:** ClH
Viscosity: Not available	**Molecular Weight:** 36.45 g/mol

Section 10: Stability and Reactivity

10.1 Chemical Stability

Stable under proper storage conditions.

10.2 Conditions to Avoid

Heat, flames and sparks. Extreme temperatures and direct sunlight.

10.3 Incompatibilities with Other Materials

Bases, Amines, Alkali metals, Metals, hexalithium disilicide, permanganates, e.g. potassium permanganate, fluorine, oxidizing agents, acids, acid anhydrides, halogens, aluminum

10.4 Hazardous Decomposition Products

Not available

10.5 Hazardous Polymerization

Has not been reported.

Section 11: Toxicological Information

11. 1 Toxicological effects

Acute toxicity:
No information available
Skin corrosion/irritation
No information available
Serious eye damage/eye irritation
No information available
Respiratory or skin sensitisation
No information available
Carcinogenicity
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH,NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.

Additional Information
RTECS: NA
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea
Kidney - Irregularities - Based on Human Evidence

Section 12: Ecological Information

12.1 Ecotoxicity:

No information available

12.2 Persistence and Degradability

No information available

12.3 Bioaccumulative Potential

No information available

12.4 Mobility in Soil

No information available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other Adverse Effects

No information available

Section 13: Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 – Transport Information

Regulations	US DOT	IATA	IMDG
Shipping Name	Flammable liquids, corrosive, n.o.s. (Hydrochloric acid, 2-Propanol)	Flammable liquids, corrosive, n.o.s. (Hydrochloric acid, 2-Propanol)	Flammable liquids, corrosive, n.o.s. (Hydrochloric acid, 2-Propanol)
Hazard Class	3 (8)	3 (8)	3 (8)
UN Number	UN2924	UN2924	UN2924
Packing Group	II	II	II

Section 15: Regulatory Information

15.1 EHS Chemical Specific Regulations

OSHA Hazards: Target Organ Effect, Toxic by ingestion, Irritant

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b:None of the chemicals are listed under TSCA Section 12b.

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

2-propanol CAS-No. 67-63-0

SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Reportable Quantity : lowest RQ > 999999 lbs

Massachusetts Right To Know Components:

Hydrochloric acid CAS-No. 7647-01-1

2-propanol CAS-No. 67-63-0

Pennsylvania Right To Know Components:

Hydrochloric acid CAS-No. 7647-01-1

2-propanol CAS-No. 67-63-0

New Jersey Right To Know Components:

2-propanol CAS-No. 67-63-0

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16: Additional Information

HMIS Classification

Health hazard: 2

Flammability: 3

Physical hazards: 0

NFPA Rating

Health hazard: 2

Fire: 3

Reactivity Hazard: 0