

HS PLUS

SECTION 1. IDENTIFICATION

Product Identifier	HS PLUS
Other Means of Identification	Code: ECJ-098
Recommended Use	Sanitizer.
Restrictions on Use	For food plant and industrial use only.
Manufacturer/Supplier Identifier	Epsilon Chemicals Ltd., 1926-94 Street N.W., Edmonton, Alberta, T6N1J3, (780) 438-3040
Emergency Phone No.	Epsilon Chemicals Inc., 1-800-361-6348 , (during regular work hours)

SECTION 2. HAZARD IDENTIFICATION

Classification

Flammable liquid - Category 2; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:
Danger

Hazard Statement(s):

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Precautionary Statement(s):

Prevention:

P210	Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist, vapours, spray.

Response:

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P315	Get immediate medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical attention.

Storage:

Store locked up in a cool, well-ventilated place away from possible contaminants.

Keep container closed when not in use.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Ethanol	64-17-5	68-73		
Isopropyl Alcohol	67-63-0	68-73		

Notes

Product is made using either Isopropanol OR Ethanol.

Concentrations are expressed in % volume/volume.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Get immediate medical attention.

Skin Contact

If skin irritation or a rash occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Get medical attention.

Ingestion

Rinse mouth with water. Do not induce vomiting. Get immediate medical attention.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: may cause nose and throat irritation, eye irritation, dizziness, headaches, nausea. A severe exposure can cause unconsciousness. At high concentrations may be fatal.

If on skin: prolonged or repeated contact on sensitive skin may cause dermatitis.

If swallowed: may cause headaches, nausea, vomiting, stomach cramps, diarrhea. A severe exposure can cause unconsciousness. May be fatal.

If in eyes: liquids and mists can cause visual impairment or corneal burns. The vapour also irritates the eyes.

Immediate Medical Attention and Special Treatment

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

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Do not use a direct water stream.

Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air.

In a fire, the following hazardous materials may be generated: toxic chemicals; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Fight fire from a safe distance or a protected location.

Use full protective clothing.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Use appropriate certified respirators when facing concentrations above exposure limit.

Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Dike spilled product to prevent runoff. Use non-sparking tools to collect absorbed material. Absorb with noncombustible material such as vermiculite, earth or sand. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal. Dike and recover contaminated water for appropriate disposal.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not swallow. Do not get in eyes.

Do not breathe in this product. Avoid generating vapours or mists. Only use where there is adequate ventilation.

Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Keep away from clothing and other combustible materials.

Prevent accidental contact with incompatible chemicals.

Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system).

Keep containers tightly closed when not in use or empty.

Conditions for Safe Storage

Store in an area that is: cool, temperature-controlled, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard).

Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL [C]	TWA	Ceiling
Ethanol		1000 ppm	1900 mg/m ³	
Isopropyl Alcohol	200 ppm	400 ppm	400 ppm	

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ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.
OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.
TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. C = Ceiling limit.

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Gloves and coveralls may be worn.

Respiratory Protection

Use appropriate certified respirators when facing concentrations above the exposure limit. Use a self-contained breathing apparatus if there is severe misting.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Odour	Alcoholic
Odour Threshold	Not available
pH	Slightly acidic
Melting Point/Freezing Point	Not available (melting); -23.0 °C (-9.4 °F) (freezing)
Boiling Range	82.78 °C (181.00 °F)
Flash Point	18.0 °C (64.4 °F) (closed cup)
Evaporation Rate	3.0 (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	12.7% (upper); 2.0% (lower)
Vapour Pressure	33.0 mm Hg (4.4 kPa) at 20 °C (68 °F)
Vapour Density (air = 1)	2.07
Relative Density (water = 1)	0.8700 - 0.8900
Solubility	Soluble in all proportions in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

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Open flames, sparks, static discharge, heat and other ignition sources. Light. Prolonged storage. Incompatible materials.

Incompatible Materials

Oxidizing agents (e.g. peroxides), acids, strong bases (e.g. sodium hydroxide), perchlorates, halogens (e.g. chlorine).

Hazardous Decomposition Products

Ethylene oxide; very toxic, flammable aldehydes; amines; very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ethanol	> 32380 ppm (male rat) (4-hour exposure)	7060 mg/kg (rat)	> 15800 mg/kg (rabbit)
Isopropyl Alcohol	17000 ppm (rat) (4-hour exposure)	4720 mg/kg (rat)	12890 mg/kg (rabbit)

Skin Corrosion/Irritation

Prolonged or repeated exposure on sensitive skin may cause dermatitis.

Serious Eye Damage/Irritation

Liquids and mists can cause visual impairment or corneal burns. The vapour also irritates the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation, eye irritation, dizziness, headaches, nausea. A severe exposure can cause unconsciousness. At high concentrations may result in death.

Ingestion

May cause headaches, nausea, vomiting, stomach cramps, diarrhea. A severe exposure can cause unconsciousness. Death may occur.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Ethanol	Not evaluated	A3	Not Listed	Not Listed
Isopropyl Alcohol	Group 3	A4	Not Listed	Not Listed

Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration.

No information was located for: Aspiration Hazard, STOT (Specific Target Organ Toxicity) - Repeated Exposure, Respiratory and/or Skin Sensitization, Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Environmental information was not located.

This section is not required by WHMIS.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Product should not be allowed to enter drains, water courses or the soil. This product and its container should be

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disposed of in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1993	Flammable Liquids, N.O.S. (Ethyl Alcohol, Isopropyl Alcohol)	3	II
US DOT	1993	Flammable Liquids, N.O.S. (Ethyl Alcohol, Isopropyl Alcohol)	3	II

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

SDS Prepared By Technical Service Department, Epsilon Chemicals

Phone No. (780) 438-3040

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References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injuries from the use of the product described herein.

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