SAFETY DATA SHEET

Revision date 01-March-2022

1. Identification			
Product identifier			
Product Name	ISOPROPYL ALCOHOL, EXCEEDS A.C.S. SPECIFICATIONS, HPLC GRADE		
Other means of identification			
Product Code(s)	HP692		
UN/ID no	UN1219		
Synonyms	None		
Recommended use of the chemical and restrictions on use			
Recommended use	No information available		
Restrictions on use	No information available		
Details of the supplier of the safety data sheet			
<u>Supplier Address</u> Spectrum Chemical Mfg. Corp. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000			
Emergency telephone number			
Emergency Telephone	Chemtrec 1-800-424-9300		

2. Hazard(s) identification

Classification

Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Causes serious eye irritation Suspected of damaging fertility or the unborn child



Revision Number 4

May cause damage to organs through prolonged or repeated exposure May cause respiratory irritation. May cause drowsiness or dizziness Highly flammable liquid and vapor



Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling Do not breathe dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ ventilating / lighting/ .? / equipment Use only non-sparking tools Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention IF IN EYES: 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 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower IF INHALED: Remove person to fresh air and keep comfortable for breathing In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful if swallowed. May be harmful in contact with skin. Causes mild skin irritation.

3. Composition/information on ingredients

Substance

Chemical name	CAS No	Weight-%	Trade secret
Isopropyl Alcohol	67-63-0	100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.		
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention.		
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.		
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.		
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.		
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.		
Most important symptoms and effects, both acute and delayed			
Symptoms	May cause redness and tearing of the eyes. Burning sensation. Prolonged contact may cause redness and irritation.		
Indication of any immediate medical attention and special treatment needed			
Note to physicians	Treat symptomatically.		

5. Fire-fighting measures

Suitable Extinguishing Media Large Fire	Dry chemical. Carbon dioxide (CO2). water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
Specific hazards arising from the chemical	risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.	
Hazardous combustion products	Carbon Monoxide, Carbon Dioxide.	
Explosion data Sensitivity to mechanical impact none.		
Sensitivity to static discharge	yes.	
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.	
Conditions for safe storage, including any incompatibilities		

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol	No data available	400 ppm TWA	-
67-63-0		980 mg/m³ TWA	

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.	
	ventilation systems.	

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Information on basic physical and o Physical state Appearance Color Odor Odor threshold	chemical properties Liquid Clear Colorless Pleasant No information available	
Property pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation rate Flammability (solid, gas) Flammability Limit in Air Upper flammability or explosive limits	<u>Values</u> no data available -88.5 °C / -127.3 °F 78.3 °C / 172.9 °F 12 - 14 °C / 53.6 - 57.2 °F 1.7 - 2.3 (n-butyl acetate = 1) no data available 12.7%	Remarks • Method None known None known None known None known None known None known
Lower flammability or explosive limits Vapor pressure Vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity	2% 4.4 2.07 0.78505 No data available no data available 0.05 - 0.1 399 °C / 750.2 °F no data available No data available	None known None known None known None known None known None known None known None known None known
Other information Explosive properties Oxidizing properties Softening point Molecular weight VOC Content (%) Liquid Density Bulk density	No information available No information available No information available 60.1 No information available No information available No information available	
10. Stability and reactivity		
Reactivity Chemical stability	No information available. Stable under normal conditions.	

None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Possibility of hazardous reactions

Information on likely routes of exposure

Product Information	
Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. Causes mild skin irritation. May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.
Symptoms related to the physical,	chemical and toxicological characteristics
Symptoms	May cause redness and tearing of the eyes. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl Alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m³(Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Serious eye damage/eye irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity The table below indicates whether e

May cause skin irritation. Classification based on data available for ingredients. Classification based on data available for ingredients. Causes serious eye irritation. No information available. No information available. No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Isopropyl Alcohol	-	Group 3 - Not classifiable	-	-
67-63-0		- Monograph 71 [1999]		
		Supplement 7 [1987]		
		Monograph 15 [1977]		

Legend

Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
STOT - single exposure STOT - repeated exposure Target organ effects	No information available. May cause damage to organs through prolonged or repeated exposure. respiratory system, Eyes, Skin.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity

_					
	Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
				microorganisms	
Г	Isopropyl Alcohol	EC50: >1000mg/L (72h,	LC50: =11130mg/L (96h,	-	EC50: =13299mg/L (48h,
	67-63-0	Desmodesmus	Pimephales promelas)		Daphnia magna)
		subspicatus) EC50:	LC50: =9640mg/L (96h,		_
		>1000mg/L (96h,	Pimephales promelas)		
		Desmodesmus	LC50: >1400000µg/L		
		subspicatus)	(96h, Lepomis		
			macrochirus)		

Persistence and degradability Bioaccumulation

No information available. Inherently biodegradable.

Component Information

Chemical name	Partition coefficient	
Isopropyl Alcohol	0.05	
67-63-0		

Other adverse effects

No information available.

13. Disposal considerations

Waste treatment methods			
Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.		
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld containers.		

14. Transport information

DOT UN/ID no Proper Shipping Name: Hazard class Packing group: Special Provisions Marine Pollutant Description: Emergency Response Guide Number	UN1219 Isopropanol 3 II IB2, T4, TP1 Severe Marine Pollutant UN1219, Isopropanol, 3, II 129
<u>TDG</u> UN-No: Proper Shipping Name: Hazard class Packing Group: Description:	UN1219 Isopropanol 3 II UN1219, Isopropanol, 3, II
<u>MEX</u> UN-No Proper Shipping Name Hazard class Packing Group Description	UN1219 Isopropanol 3 II UN1219, Isopropanol, 3, II
ICAO (air) UN-No: Proper Shipping Name:	UN1219 Isopropanol

Hazard class Packing Group: Special Provisions Description:	3 II A180 UN1219, Isopropanol, 3, II
IATA_ UN number Proper Shipping Name: Transport hazard class(es) Packing group Description:	UN1219 Isopropanol 3 II UN1219, Isopropanol, 3, II
IMDG UN number Proper shipping name Transport hazard class(es) Packing group EmS-No Marine pollutant Description	UN1219 Isopropanol 3 II F-E, S-D NP1 UN1219, Isopropanol, 3, II, (12°C c.c.)
<u>RID</u> UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Special Provisions Description: Labels	UN1219 Isopropanol 3 II F1 601 UN1219, Isopropanol, 3, II 3
ADR UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Tunnel restriction code Special Provisions Description: Labels	1219 Isopropanol 3 II F1 (D/E) 601 1219, Isopropanol, 3, II, (D/E) 3
ADN UN/ID No Proper shipping name Transport hazard class(es) Packing Group Classification code Special Provisions Description Hazard label(s) Limited quantity (LQ) ventilation Equipment Requirements	UN1219 Isopropanol 3 II F1 601 UN1219, Isopropanol, 3, II 3 1 L VE01 PP, EX, A

15. Regulatory information

International Inventories

TSCA

Complies

DSL/NDSL EINECS/ELINCS Complies Complies

ENCS IECSC	This product complies with ENCS: This product complies with China:
KECL	Complies
PICCS	Complies
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

- **ENCS** Japan Existing and New Chemical Substances
- **IECSC** China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %	
Isopropyl Alcohol - 67-63-0	1.0	

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

	Chemical name	New Jersey	Massachusetts	Pennsylvania
Γ	Isopropyl Alcohol	1076	Present	Environmental hazard
	67-63-0			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA Health hazards 2 Flammability 3 Instability 0 Physical and chemical properties -<u>HMIS</u> Health hazards 2 * Flammability 3 Physical hazards 0 Personal protection X *Chronic Hazard Star Legend* *= *Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet

LegendSection 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONTWATWA (time-weighted average)CeilingMaximum limit value

STEL (Short Term Exposure Limit)

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

Revision date	01-March-2022
Revision Note	No information available.
Disclaimer	

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet