SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product name	Hand Sanitizer Gel, 80% SD Ethanol

Manufacturer or supplier's details

Company name	HY-GN
Address	930 TAHOE BLVD, STE. 802 PMB 700, INCLINE VILLAGE NV 89451
Telephone	
Emergency telephone number	CHEMTREC 1-800-424-9300 CHEMTREC +1-703-527-3887 Outside USA & CANADA

Recommended use of the chemical and restrictions on use

Recommended use	Hand Sanitizer
Restrictions on use	This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SOS for the consumer. While this material is not considered hazardous, this SOS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SOS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	Category 3
Eye irritation	Category 2A

GHS label elements

Hazard pictograms

Signal word

Warning

Hazard statements

H226 Flammable liquid and vapors.
H319 Causes serious eye irritation.

Precautionary statements

Prevention:

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 discharge. P280 Wear eye protection/ face protection.

Response:

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

Other Hazards: None known

SECTION 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>=77% to <80%
Isopropyl Alcohol	67-63-0	>=4% to<6%

SECTION 4. FIRST AID MEASURES

General advice

In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled

If inhaled, remove to fresh air.
If symptoms persist, call a physician.

In case of skin contact

Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists.

In case of eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice.

If swallowed

If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

Protection of first aiders

First Aid responders should pay attention to self-protection and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	High volume water jet
Specific hazards during firefighting	Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray. Flash back possible over considerable distance. May form explosive mixtures in air. Exposure to decomposition products may be a hazard to health. Carbon oxides
Hazardous combustion products	Carbon oxides
Specific extinguishing methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Further information	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENT AL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Material can create slippery conditions.
Environmental precautions	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/ vapours/ mists with a water spray jet. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	For personal protection see section 8. Keep away from heat and flame. Use with local exhaust ventilation. Avoid contact with eyes.

Conditions for safe storage	Take measures to prevent the buildup of electrostatic charge. Keep in properly labelled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of work week	40 mg/l	ACGIH BEi

Personal protective equipment

Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection Remarks	No special protective equipment required.
Eye protection	Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	No special measures necessary provided product is used correctly.
Protective measures	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Ensure that eye flushing systems and safety showers are located close to the working place.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Color	clear, greenish-blue
Odour	alcohol-like
Odour Threshold	No data available
pH	3.8 - 5.2, (20 °c)
Melting point/freezing point	No data available
Initial boiling point and boiling range	75.00 °C
Flash point	26.50 °C
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Flammability (liquids)	
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Density	0.8742 g/cm3
Solubility(ies) Water solubility	soluble
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	No data available
Thermal decomposition	The substance or mixture is not classified self-reactive.
Viscosity Viscosity, kinematic	80 - 600 mm2/s (20 °C)
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not classified as a reactivity hazard.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames and sparks.

Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Acute oral toxicity	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	LC50 (Rat): 124.7 mg/l Exposure time: 4 h Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	LC50 (Rat): 72.6 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	LD50 (Rat): > 5,000 mg/kg

Skin corrosion/ irritation

Not classified based on available information.

Components:

Ethyl Alcohol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Isopropyl Alcohol:
Species: Rabbit
Result: No skin irritation

Serious eye damage/ eye irritation

Causes serious eye irritation.

Components:

Ethyl Alcohol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Isopropyl Alcohol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Components:

Ethyl Alcohol:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Isopropyl Alcohol:
Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Genotoxicity in vitro	Test Type: In vitro mammalian cell gene mutation test Result: negative
Genotoxicity in vivo	Test Type: Rodent dominant lethal test (germ cell) (in vivo) Test species: Mouse Application Route: Ingestion Result: negative

Isopropyl Alcohol:

Genotoxicity in vitro	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Test species: Mouse Application Route: Intraperitoneal injection Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Isopropyl Alcohol:
Species: Rat
Application Route: inhalation (vapour)
Exposure time: 104 weeks
Method: OECD Test Guideline 451
Result: negative

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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.
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.

Reproductive toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Effects on fertility

Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Isopropyl Alcohol:

Effects on fertility

Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development

Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT • single exposure

Not classified based on available information.

Components:

Isopropyl Alcohol:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Ethyl Alcohol:

Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Isopropyl Alcohol:

Species: Rat
NOAEL: 5000 ppm
Application Route: inhalation (vapour)
Exposure time: 104 w
Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ethyl Alcohol:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h
Toxicity to algae	EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 9 d
Toxicity to bacteria	EC50 (Photobacterium phosphoreum): 32.1 mg/l Exposure time: 0.25 h
Isopropyl Alcohol: Toxicity to fish	LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h
Toxicity to bacteria	EC50 (Pseudomonas putida): > 1,050 mg/l Exposure time: 16 h

Persistence and degradability

Components:

Ethyl Alcohol: Biodegradability	Result: Readily biodegradable. Biodegradation: 84 % Exposure time: 20 d
Isopropyl Alcohol: Biodegradability	Result: rapidly degradable

Bio accumulative potential

Components:

Ethyl Alcohol: Partition coefficient: n-octanol/water	log Pow: -0.35
Isopropyl Alcohol: Partition coefficient: n-octanol/water	log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + 8).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No.	UN 1987
Proper shipping name	Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	3
Packing group	III
Packing instruction (cargo aircraft)	366
Packing instruction (passenger aircraft)	355

IMDG-Code

UN number	UN 1987
Proper shipping name	ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	3
Packing group	III
Labels	3
EmS Code	F-E, S-D
Marine pollutant	no

National Regulations

49 CFR

UN/ID/NA number	UN 1987
Proper shipping name	Alcohols, n.o.s.
Class	3
Packing group	III
ERG Code	127
Marine pollutant	no

SECTION 15. REGULATORY INFORMATION

EPCRA • Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/ 312 Hazards Fire Hazard Acute Health Hazard

SARA302 No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

Isopropyl Alcohol	67-63-0	4-6%

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Ethyl Alcohol	64-17-5
Isopropyl Alcohol	67-63-0

This product does not contain any voe exemptions listed under the U.S. Clean Air Act Section

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Ethyl Alcohol	64-17-5
Isopropyl Alcohol	67-63-0

Pennsylvania Right To Know

Ethyl Alcohol	64-17-5
Water (Aqua)	7732-18-5
Isopropyl Alcohol	67-63-0

New Jersey Right To Know

Ethyl Alcohol	64-17-5
Water (Aqua)	7732-18-5
Isopropyl Alcohol	67-63-0

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

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
AICS	On the inventory, or in compliance with the inventory
DSL	On the inventory, or in compliance with the inventory
ENCS	On the inventory, or in compliance with the inventory
ISHL	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory
NZIoC	On the inventory, or in compliance with the inventory

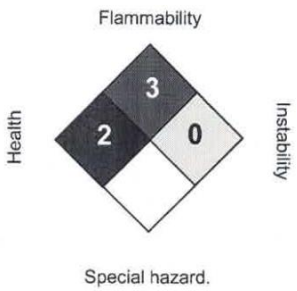
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand}, PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYZICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, • = Chronic

The information presented above is believed to be accurate and represents the best information currently available to HY-GN.

HY-GN makes no warranty, express or implied, with respect to such information, and assumes no liability resulting from its use. The user is responsible for the proper and safe use, handling, storage and disposal of the product. and assumes liability for any loss, injury, damage or expense arising from any failure to do so. The data in this sheet is based on information and experience available at the time of writing.