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Section 1. Identification

Product Identifier Ethanol

Product Identity Denatured Ethanol, Special Industrial Solvent, Form, A-1, 200

Proof

Other Means of Denatured Alcohol; Denatured Ethanol; Govt. Formula SIA-1

Identification (SPECIAL INSOLV A-1) 200 PROOF

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

General purpose solvent.

Details of the Supplier of the Safety Data Sheet

Company Name Silver Fern Chemical. Inc.

2226 Queen Anne Avenue North

Seattle, WA 98109 USA

Customer Service: 1-866-282-3384 /

info@silverfernchemical.com

Website - www.silverfernchemical.com

Emergency

24-hour Emergency

Emergency telephone number

Telephone No. Infotrac: 1-800-535-5053; Outside USA & Canada +1-

352-323-3500

Customer Service:

Section 2. Hazard(s) Identification

Classification of the Substance or Mixture Under OSHA's Hazard Communication **Standard (1910.1200) Revised 2024 (GHS Revision 7)**

Flammable Liquid, category 2; H225 Highly Flammable liquid and

vapor.

Serious eye damage / eye irritation, category 2; H319

Carcinogen, category 2; H351

Causes serious eye irritation. Suspected of causing cancer.



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Specific target organ toxicity, Specific exposure category 2; H371

May cause damage to organs.

Label Elements







Danger

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

H371 May cause damage to organs.

[Prevention]

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

P233 Keep container tightly closed.

P235 Keep cool.

P240 Ground, bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating, light, equipment.

P242 Use only non-sparking tools.

P243 Take action to prevent static discharges.

P260 Do not breathe dust, fume, mist, vapors or spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves, eye protection, and face protection.

[Response]



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P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.

P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313 IF exposed or concerned: Get medical advice or attention.

P337+313 If eye irritation persists: Get medical advice or attention.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]

P403+235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

Other Hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.



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Section 3. Composition/Information on Ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Ethanol CAS Number: 64-17-5 Synonyms: Ethyl Alcohol	85.81%	Flammable Liquid, category 2; H225 Serious eye damage / eye irritation, category 2; H319	No data available.
Isopropyl Alcohol CAS Number: 67-63-0 Synonyms: ISOPROPYL ALCOHOL (manufacture- strong acid process, Propan-2-ol, Solvent C-3, ISOPROPANOL	8.97%	Flammable Liquid, category 2; H225 Serious eye damage / eye irritation, category 2; H319 Specific target organ toxicity, Specific exposure category 3; H336	No data available.
Methanol CAS Number: 67-56-1 Synonyms: methanol (as methanol), METHYL ALCOHOL	4.31%	Flammable Liquid, category 2; H225 Acute toxicity(inhalation), category 3; H331 Acute toxicity(oral), category 3; H301 Acute toxicity(dermal), category 3; H311 Specific target organ toxicity, Specific exposure category 1; H370 C ≥ 10 % Specific target organ toxicity, Specific exposure category 2; H371 3 % ≤ C < 10 %	No data available.
Methyl Isobutyl Ketone CAS Number: 108-10-1 Synonyms: 4-Methyl-2-pentanon, 4-methylpentan-2- one, Pentanone, 4-methyl-	0.91%	Flammable Liquid, category 2; H225 Acute toxicity(inhalation), category 4; H332 Serious eye damage / eye irritation, category 2; H319	No data available.
		Carcinogen, category 2; H351 Specific target organ toxicity, Specific exposure category 3; H336	

The actual concentration or concentration range is withheld as a trade secret.

Section 4. First Aid Measures

Description of First Aid Measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

^{*}PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.



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InhalationRemove to fresh air, keep patient warm and at rest. If breathing is irregular or

stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids

apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water

or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT

induce vomiting.

Most Important Symptoms and Effects, Both Acute and Delayed

Overview Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.

Treat symptomatically. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Inhalation May cause damage to organs.

Eyes Causes serious eye irritation.

Ingestion May be harmful if swallowed.

Section 5. Fire-Fighting Measures

Extinguishing Media

CO², Dry Chemical, Foam, Sand.

Unsuitable extinguishing



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Do not use water jet as an extinguisher, as this will spread the fire.

Special Hazards Arising from the Substance or Mixture

Hazardous decomposition: High temperatures and fires may produce such toxic substances as carbon monoxide and carbon dioxide.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking. Keep container tightly closed.

Keep cool.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Do not breathe dust, fume, mist, vapors or spray.

Advice for Fire-Fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. 127

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental Precautions

Do not allow spills to enter drains or waterways. Collect in flammable waste container for disposal.

Methods and Material for Containment and Cleaning Up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and



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vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and Storage

Precautions for Safe Handling

Handle containers carefully to prevent damage and spillage. See section 2 for further details. - [Prevention]

Conditions for Safe Storage, Including any Incompatibilities

Incompatible materials: Acids. Strong oxidizing agents. Chlorine. Isocyanates. See section 2 for further details. - [Storage]

Specific End Use(s)

No available information.

Section 8. Exposure Controls / Personal Protection

Control Parameters

Exposure

CAS No.	Ingredient	Source	Value
64-17-5	Ethanol	OSHA	1000 ppm, 1900 mg/m ³
		ACGIH	1000 ppm
		NIOSH	TWA 1000 ppm (1900 mg/m³)
67-56-1	Methanol	OSHA	200 ppm, 260 mg/m ³
		ACGIH	200 ppm 250 ppm
		NIOSH	TWA 200 ppm (260 mg/m³) STEL: 250 ppm (325 mg/m³) [skin]
67-63-0	Isopropyl Alcohol	OSHA	400 ppm, 980 mg/m ³
		ACGIH	200 ppm 400 ppm
		NIOSH	TWA 400 ppm (980 mg/m³) STEL: 500 ppm (1225 mg/m³)
108-10-1	Methyl Isobutyl Ketone	OSHA	100 ppm, 410 mg/m ³
		ACGIH	20 ppm 75 ppm
		NIOSH	TWA 50 ppm (205 mg/m³) STEL: 75 ppm (300 mg/m³)

Exposure Controls

Respiratory If workers are exposed to concentrations above the exposure limit they

must use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Use neoprene or rubber gloves or PVC.



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Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable

respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and

wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State Liquid.
Color Colorless.

Odor
Freezing Point
Initial Boiling Point and Boiling Range
Flammability (Solid, Gas)

No distinct odor.
-114°C (-173°F)
80°C (176°F)
Flammable.

Upper/Lower Flammability or Explosive Lower Explosive Limit: 19%(V)

Limits

Upper Explosive Limit: 3.3%(V)

Flash Point 14°C (58°F) - closed cup

Auto-Ignition Temperature 363°C (685.4°F) - (Ethyl Alcohol)

Decomposition TemperatureNo available information.pHNo available information.Viscosity (cSt)No available information.

Viscosity (cSt)

Solubility in Water

Partition Coefficient N-Octanol/Water

No available information.

No available information.

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(Log Kow)

Vapor Pressure (Pa)44.6mmHg (5.94 kPa)Relative DensityNo available information.

Vapor Density 1.6 (Air = 1)

Evaporation Rate (Ether = 1) Specific data not available - expected to be

rapid.

Oxidizing properties

Explosive properties

Molecular Weight

No available information.

No available information.

(ETHANOL) 46.07 g/mol



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(ISOPROPYL ALCOHOL) 60.1 g/mol (METHYL ALCOHOL) 32.04 g/mol (METHYL ISOBUTYL KETONE) 100.16 g/mol

Molecular Formula

(ETHANOL) C2H6O (ISOPROPYL ALCOHOL) C3H8O (METHYL ALCOHOL) CH4O (METHYL ISOBUTYL KETONE) C6H12O

Other Information

No other relevant information.

Section 10. Stability and Reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions

No available information

Conditions to avoid

High temperatures and fires.

Incompatible materials

Acids. Strong oxidizing agents. Chlorine. Isocyanates.

Hazardous decomposition products

High temperatures and fires may produce such toxic substances as carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Acute Toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.



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Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Ethanol - (64-17-5)					
	10,470.00, Rat - Category: NA	17,100.00, Rabbit - Category: NA	124.70, Rat - Category: NA	No data available.	No data available.
Isopropyl Alcohol - (67- 63-0)	5,840.00, Rat - Category: NA	16,400.00, Rabbit - Category: NA	72.60, Rat - Category: NA	No data available.	No data available.
Methanol - (67-56-1)					
	101.10, Rat - Category: 3	301.00, Rabbit - Category: 3	2.10, Rat - Category: 3	No data available.	No data available.
Methyl Isobutyl Ketone - (108-10-1)	2,080.00, Rat - Category: 5	16,000.00, Rabbit - Category: NA	11.00, Rat - Category: 4	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
64-17-5	Ethanol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A3
67-56-1	Methanol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
67-63-0	Isopropyl Alcohol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes;
		ACGIH	A4
108-10-1	Methyl Isobutyl Ketone	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No;
		ACGIH	A3

Classification	Category	Hazard Description
Acute Toxicity (Oral)		Not applicable.



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Acute Toxicity (Dermal)		Not applicable.
Acute Toxicity (Inhalation)		Not applicable
Skin Corrosion/Irritation		Not applicable
Serious Eye Damage/Irritation	2	Causes serious eye irritation.
Respiratory Sensitization		Not applicable.
Skin Sensitization		Not applicable.
Germ Cell Mutagenicity		Not applicable.
Carcinogenicity	2	Suspected of causing cancer.
Reproductive Toxicity		Not applicable.
STOT-Single Exposure	2	May cause damage to organs.
STOT-Repeated Exposure		Not applicable.
Aspiration Hazard		Not applicable.

Possible routes of entry:

Symptoms and Effects, Both Acute and Delayed:

Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.

Treat symptomatically.

Inhalation May cause damage to organs. **Eyes** Causes serious eye irritation.

Ingestion May be harmful if swallowed.

Section 12. Ecological Information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish,	48 hr EC50 crustacea,	ErC50 algae,
	mg/L	mg/L	mg/L
Ethanol - (64-17-5)	15,400.00, Lepomis macrochirus	> 10,000, Daphnia magna	17.92, Ulva pertusa



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Ingredient	96 hr LC50 fish,	48 hr EC50 crustacea,	ErC50 algae,
	mg/L	mg/L	mg/L
Isopropyl Alcohol - (67-63-0)	10,000.00, Pimephales promelas	No data available.	No data available.
Methanol - (67-56-1)	15,400.00, Lepomis	> 10,000.00, Daphnia	22,000.00, Pseudokirchneriella
	macrochirus	magna	subcapitata
Methyl Isobutyl Ketone - (108- 10-1)	505.00, Pimephales promelas	201.00, Daphnia magna	980.00, Scenedesmus subspicatus

Persistence and Degradability

There is no data available on the preparation itself.

Bioaccumulative Potential:

Partition coefficient n-octanol / water (log Kow)

2-Pentanone, 4-methyl- (CAS 108-10-1) 1.31

Methanol (CAS 67-56-1) -0.77

Propan-2-ol (CAS 67-63-0) 0.05.

Mobility in Soil

The product is completely soluble in water.

Results of PBT and vPvB Assessment

This product contains no PBT/vPvB chemicals.

Other Adverse Effects

No available information.

Section 13. Disposal Considerations

Waste Treatment Methods

Destroy by liquid incineration. Use absorbent material and deposit in toxic landfill in accordance with local, state, and federal regulations.

Section 14. Transport Information

	Transportation)	Transportation)	ICAO/IAIA
UN Number	UN1987	UN1987	UN1987
UN proper	Alcohols, n.o.s. (Ethyl	Alcohols, n.o.s. /	Alcohols, n.o.s. /
Shipping Name	alcohol; Propan-2-ol)	UN1987	UN1987



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Transport DOT Hazard Class:3 IMDG:3 Air Class:3 Hazard Sub Class: Not Applicable Sub Class: Not Applicable Applicable

Packing Group | | | | |

Environmental Hazards

Marine Pollutant: No.

Special Precautions for User

No available information.

Section 15. Regulatory Information

Regulatory The regulatory data in Section 15 is not intended to be all-inclusive,

Overview only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000064-17-5	Ethanol	Yes		ACTIVE
0000067-63-0	Isopropyl Alcohol	Yes		ACTIVE
0000067-56-1	Methanol	Yes		ACTIVE
0000108-10-1	Methyl Isobutyl Ketone	Yes		ACTIVE

The Following Flags are Used:

- •Active indicates commercial status designation of active
- •E indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
- •F indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- •N indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- •P indicates a commenced Premanufacture Notice (PMN) substance.
- •R indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- •S indicates a substance that is identified in a final Significant New Uses Rule.
- •SP indicates a substance that is identified in a proposed Significant New Uses Rule.



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- •T indicates a substance that is the subject of a final Section 4 test rule under TSCA.
- •UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
- •Y1 indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
- •Y2 indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

Proposition 65 - Carcinogens (>0.0%):

Methyl Isobutyl Ketone

Proposition 65 - Developmental Toxins (>0.0%):

Methanol

Methyl Isobutyl Ketone

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:



WARNING: This product can expose you to chemicals including [Methyl Isobutyl Ketone], which is known to the State of California to cause cancer, and [Methanol, Methyl Isobutyl Ketone], which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Mass RTK Substances (>1%):

Ethanol

Isopropyl Alcohol

Methanol



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Methyl Isobutyl Ketone

New Jersey RTK Substances (>1%): Ethanol

Methanol

Isopropyl Alcohol

Methyl Isobutyl Ketone

Pennsylvania RTK Substances (>1%):

Ethanol

Isopropyl Alcohol

Methanol

Methyl Isobutyl Ketone

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:

Methyl Isobutyl Ketone

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:



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Methyl Isobutyl Ketone

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other Information

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DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H336 May cause drowsiness and dizziness.

H351 Suspected of causing cancer.



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H370 Causes damage to organs.

H371 May cause damage to organs.

End of Document

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