SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Ninhydrin, 0.02% in Isopropanol
CAS number	See section 3
Synonyms	None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flammable Liquid Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word: Danger

Hazard statements:
Highly flammable liquid and vapor.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary statements:

Prevention:
Keep away from heat/ sparks/ open flames/ hot surfaces.
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.
Avoid breathing mist or vapors.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.

Response:
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. Call a POISON CENTER/ doctor if you feel unwell.
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.

Fire:
In case of fire, use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
2-Propanol	Isopropyl alcohol; IPA; Isopropanol	67-63-0	>99%
Ninhydrin	-	485-47-2	<1%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice Show this sheet to a doctor if medical advice is needed.

If inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

In case of skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of eye contact In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4.2 Most important symptoms and effects, both acute and delayed

Difficulty in breathing. May cause central nervous system depression. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media CO_2, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers.

Unsuitable extinguishing media Water may be ineffective.

5.2 Specific hazards arising from the substance or mixture

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO2), peroxides.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point 53.6 °F (12.0 °C) Closed Cup

Autoignition Temperature 750.2 °F (399 °C)

Explosion limits

Upper 12.7% v/v

Lower 2% v/v

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	3	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

6.2 Environmental precautions

Avoid discharge into drains, water courses, or onto the ground.

6.3 Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not handle, store, or open near an open flame, sources of heat, or sources of ignition. Protect material from direct sunlight. When using, do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Keep away from heat, sparks, and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials.

Incompatibilities

Strong oxidizing agents. Acids. Halogens. Acid anhydrides.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Isopropyl alcohol	(Vacated) TWA	400 ppm 980 mg/m3
	(Vacated) STEL	500 ppm 1225 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Isopropyl alcohol	TWA	200 ppm
	STEL	400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Isopropyl alcohol	IDLH	2000 ppm
	TWA	400 ppm 980 mg/m3
	STEL	500 ppm 1225 mg/m3

Biological occupational exposure limits

Component	Parameter,value	Biological specimen	Remarks
Isopropyl alcohol	Acetone, 40 mg/L	Urine	-

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye/face protection

Chemical goggles are recommended.

Skin protection

Nitrile, butyl rubber, or neoprene gloves are recommended. Other suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Body Protection

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Chemical respirator with organic vapor cartridge.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Alcohol-like
Odor Threshold	No information avialable
pH	No information avialable
Melting Point/Range	-129.1 °F (-89.5 °C)

Boiling Point/Range	181.4 °F (83 °C)
Evaporation Rate	No information avialable
Flammability (solid)	No information avialable
Flammability or explosive limit	
Upper	12.7% v/v
Lower	2% v/v
Vapor Pressure	33 mmHg at 20 °C
Vapor Density	No information avialable
Density	0.785 g/ml (77 °F (25 °C))
Solubility	Soluble in water
Partition coefficient; n-octanol/water	log Pow = 0.05
Autoignition Temp	750.2 °F (399 °C)
Decomposition Temp	No information avialable
Viscosity	No information avialable
Molecular Formula	Mixture
Molecular Weight	Mixture
VOC Content(%)	99%
Oxidizing properties	No information avialable

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage, and transport.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Heat, flames, and sparks. Keep away from open flames, hot surfaces, and sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents, Acids, Halogens, Acid anhydrides.

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2), peroxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl alcohol	5045 mg/kg (Rat) 3600 mg/kg (Mouse)	12799 mg/kg (Rat)	72.6 mg/L 4h (Rat)
Ninhydrin	Rat 250 mg/kg	-	-

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Not a respiratory sensitizer. This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Isopropyl alcohol	67-63-0	Listed	Not listed	Not listed	Not listed	Not listed
Ninhydrin	485-47-2	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Central nervous system (CNS). May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure

Not classified.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Chronic effects

Prolonged inhalation may be harmful.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

2-Propanol Eco Toxicity:
96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 MG/L
96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC]
96 HR LC50 PIMEPHALES PROMELAS 9640 MG/L [FLOWTHROUGH]
48 HR EC50 DAPHNIA MAGNA 13299 MG/L
72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L
96 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No bioaccumulation expected (Partition coefficient n-octanol/water (log Kow) - 0.05)).

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN Number	UN1219
Proper Shipping name	Isopropanol Solution
Hazard Class	3

Packaging Group	II

IMDG

UN Number	UN1219
Proper Shipping name	Isopropanol Solution
Hazard Class	3
Packaging Group	II

IATA

UN Number	UN1219
Proper Shipping name	Isopropanol Solution
Hazard Class	3
Packaging Group	II

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not listed/applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed/applicable.

SARA 304 Emergency release notification
Not listed/applicable.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed/applicable.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed/applicable.

SARA 311/312 Hazardous
See section 2 for hazard classifications.

SARA 313 (TRI reporting)
Listed, Isopropyl alcohol (CAS #67-63-0).

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not listed/applicable.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not listed/applicable.

Safe Drinking Water Act

Not listed/applicable.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Listed, Isopropyl alcohol (CAS #67-63-0).

US state regulations

US. Massachusetts RTK - Substance List

Listed, Isopropyl alcohol (CAS #67-63-0).

US. New Jersey Worker and Community Right-to-Know Act

Listed, Isopropyl alcohol (CAS #67-63-0).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed, Isopropyl alcohol (CAS #67-63-0).

California Proposition 65

Not listed.

SECTION 16: Other information

Date of Issue: 6/30/2025

SECTION 17: Disclaimer

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