

# SAFETY DATA SHEET

HYSOL 2240  
Product ID: HS2240  
Revised: 01-17-2014  
Replaces: 07-13-2009

**CHEMICAL DISTRIBUTION**  
**SOLUTIONS**

## 1. IDENTIFICATION

**Product Name:** HYSOL 2240  
**Synonyms:** N.A.  
**CAS Number:** MIXTURE  
**Recommended Use:** No data available.  
**Restrictions on Use:** No data available.

**Chemical Distribution Solutions**  
1125 Oak St. Ste. 303  
Conway, AR 72032  
(501) 978-1111

**EMERGENCY RESPONSE NUMBERS:**  
24 Hour Emergency #: (800) 424-9300 CHEMTREC

## 2. HAZARD(S) IDENTIFICATION



**Signal Word:** Danger

**GHS Classification:** Flammable Liquid Category 2  
Skin Corrosion/Irritation Category 2  
Serious Eye Damage/Eye Irritation Category 2A  
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

**Hazard Statements:** Highly flammable liquid and vapour.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.

**Precautionary Statements:**

**Prevention:** Keep away from heat, sparks, open flames and hot surfaces. – No smoking.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical, ventilating, and lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust, gas, mist, vapors or spray.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear gloves, eye and face protection and protective clothing.

**Response:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a POISON CENTER or doctor if you feel unwell.

Specific treatment (see First Aid on SDS or on this label).  
If skin irritation occurs: Get medical advice or attention.  
If eye irritation persists: Get medical advice or attention.  
Take off contaminated clothing and wash before reuse.  
In case of fire: Use appropriate extinguishing media - See Section 5 on SDS.

**Storage:** Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store in a secure manner.

**Disposal:** Dispose of in accordance with local, regional and international regulations.

**Hazards Not Otherwise Classified:** May cause damage to the kidneys, liver, blood, and may cause birth defects and other reproductive harm. May be harmful or fatal if swallowed and enters airways. Potential peroxide former.

**Percentage of Components with Unknown Acute Toxicity:**

**Oral:** 85.0 %  
**Dermal:** 85.0 %

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Component</b>	<b>CAS Number</b>	<b>% by Wt.</b>
Ethyl Alcohol	64-17-5	< 90 %
Isopropyl Alcohol	67-63-0	< 20 %
N-Propyl Acetate	109-60-4	< 5 %

**4. FIRST-AID MEASURES**

**Eye Contact:** If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

**Skin Contact:** If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Do not apply oils or ointments unless ordered by the physician.

**Inhalation:** If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Keep warm and quiet.

**Ingestion:** If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Most Important Symptoms/Effects:**

**Eye Contact:** Causes moderate to severe irritation. May cause: stinging. burning. tearing. redness. light sensitivity. conjunctivitis. corneal damage. Vapors are also irritating.

**Skin Contact:** Causes mild to moderate irritation. Contact may cause: drying. redness. stinging. pain. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

**Skin Absorption:** May be harmful if absorbed through skin.

**Inhalation:** May cause moderate irritation. Vapors may irritate: nose. respiratory tract. eyes. Vapors may cause: central nervous system depression. Symptoms may include: burning sensation. headache. dizziness. tremors. nausea. vomiting. drowsiness. faintness. hypotension. hypothermia. circulatory failure. respiratory arrest. death.

**Ingestion:** May cause moderate irritation. May be harmful or fatal if swallowed. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea. central nervous system depression. inebriation. anesthesia. coma. respiratory failure. kidney damage. death in significant exposures. Symptoms may include: headache. tremors.

fatigue. hallucinations. distorted perceptions. convulsions. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Water fog. Dry chemical. Carbon dioxide. Alcohol foam. Water spray. Water may be ineffective but should be used to cool fire-exposed structures and vessels. **DO NOT USE:** Direct water stream.

**Fire Fighting Methods:** Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. If container is not properly cooled, it can rupture in the heat of a fire. Do not use direct water stream. May spread fire. Run-off from fire control may cause pollution.

**Fire and Explosion Hazards:** FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). **PROCESS HAZARD:** Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Alcohol flames may be difficult to see because they are virtually colorless. Vaporizes easily at normal temperatures. Prevent buildup of vapor to avoid explosive concentrations. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure. May form explosive peroxides. Material may accumulate a static charge which could act as an ignition source.

**Hazardous Combustion Products:** Carbon monoxide. Carbon dioxide. Incompletely burned carbon compounds. Smoke. Fumes.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill Clean-Up Procedures:** FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Shut off source of leak if safe to do so. Use water spray to control vapor. A vapor suppressing foam may be used to reduce vapors. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. **DO NOT** use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Prevent entry into basements, low areas, or confined areas. For large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. **CAUTION:** Spilled material may be slippery.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. **DO NOT** pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Take precautionary measures against static discharges. Use non-sparking tools and equipment. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazards of static accumulation. Ethyl Alcohol is listed on the EPA/TSCA inventory of chemical substances. The Bureau of Alcohol, Tobacco and Firearms has issued

regulations governing the production, procurement, and use of Ethyl Alcohol. All users must comply with these regulations.

**Storage:** FLAMMABLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Protect against physical damage. Outside or detached storage is preferred. Refer to local fire codes for storage requirements and allowable limits. Peroxides may form upon prolonged storage. Exposure to light, heat or air significantly increases peroxide formation. If evaporated to a residue, the mixture of peroxides residue and material vapor may explode when exposed to heat or shock. If peroxide formation is suspected, do not open or move container. Periodically test for peroxide formation on long-term storage. See Section 10 for incompatible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OSHA Exposure Guidelines:

<b>Component</b>	<b>Limits</b>
Ethyl Alcohol	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol	400 ppm TWA; 980 mg/m <sup>3</sup> TWA
N-Propyl Acetate	200 ppm TWA; 840 mg/m <sup>3</sup> TWA

### ACGIH Exposure Guidelines:

<b>Component</b>	<b>Limits</b>
Ethyl Alcohol	1000 ppm STEL
Isopropyl Alcohol	400 ppm STEL; 200 ppm TWA
N-Propyl Acetate	250 ppm STEL; 200 ppm TWA

**Engineering Controls:** Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

**Eye/Face Protection:** Wear chemical safety goggles while handling this product. Do not wear contact lenses. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Wear a full-face respirator, if needed.

**Skin Protection:** Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Impervious. Chemical-resistant.

**Respiratory Protection:** Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved respirator. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

**Other Protective Equipment:** Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Rubber boots. Impervious clothing. Protective clothing. Launder contaminated clothing and clean protective equipment before reuse.

**General Hygiene Conditions:** Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Liquid.

**Color:** Clear. Colorless.

**Odor:** Alcohol odor.

**Odor Threshold:** N.D.

HYSOL 2240  
Product ID: HS2240

pH: N.A.  
**Freezing Point (deg. F):** < - 127  
**Melting Point (deg. F):** N.D.  
**Initial Boiling Point or Boiling Range:** ~ 165 - 215 °F  
**Flash Point:** 54 °F  
**Flash Point Method:** TCC.  
**Evaporation Rate (nBuAc = 1):** >1.2  
**Flammability (solid, gas):** N.D.  
**Lower Explosion Limit:** ~2-4%  
**Upper Explosion Limit:** ~20%  
**Vapor Pressure (mm Hg):** ~32-50 @20C  
**Vapor Density (air=1):** ~1.6-2.1  
**Specific Gravity or Relative Density:** 0.794 @25C  
**Solubility in Water:** Complete  
**Partition Coefficient (n-octanol/water):** N.D.  
**Autoignition Temperature:** ~ 752 Deg. F.  
**Decomposition Temperature:** N.D.  
**Viscosity:** 200 @ 25C  
**% Volatile (wt%):** 100%  
**VOC (wt%):** 100%  
**VOC (lbs/gal):** 6.61  
**Fire Point:** N.D.

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur under normal conditions. Under normal storage conditions peroxides may accumulate and explode when subjected to heat or shock. Distillation or evaporation increases peroxide formation and increases the explosion hazard.

**Conditions to Avoid:** Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid other ignition sources. Avoid static discharges. Avoid exposure to light. Avoid contact with air. Do not allow to evaporate to near dryness.

**Incompatible Materials:** Oxidizing agents. Strong inorganic acids. Alkali metals. Acids. Alkalies. Amines. Halogens. Chlorine. Isocyanates. Chlorinated compounds. Aldehydes. Alkanolamines. Ethylene oxide. Aluminum. Oleum. Chromium trioxide. Moisture. Acetaldehyde. Ketones. Acid anhydrides. Permanganates. Oxygen. Hydrogen peroxide. Potassium tert-butoxide. Iron salts. Carbonyl dichloride (phosgene). Trinitromethane. Barium perchlorate. Dioxygenyl tetrafluoroborate. Nitroform. Perchloric acid. Hypochlorous acid. Sulfuric acid. Urea formaldehyde. Hexamethylene diisocyanate. Caustics. Halogenated organics. Aluminum isopropoxide + crotonaldehyde + heat. Sodium dichromate + sulfuric acid. Hydrogen + palladium. Hydrogen peroxide-sulfuric acid combination. May attack some forms of plastics, rubbers, and coatings.

**Hazardous Decomposition Products:** Carbon monoxide. Carbon dioxide. Irritating and/or toxic gases.

## 11. TOXICOLOGICAL INFORMATION

<b>Component</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Ethyl Alcohol	No Data	No Data	4H Rat: 124.7 mg/L
Isopropyl Alcohol	Rat: 4396 mg/kg	Rabbit: 12,800 mg/kg	8H Rat: 16,000.0 ppm
N-Propyl Acetate	Rat: 9370 mg/kg	Rabbit: > 20 ml/kg	No Data

**Routes of Exposure:** Eyes. Skin. Inhalation. Ingestion. Absorption.

**Eye Contact:** Causes moderate to severe irritation. May cause: stinging. burning. tearing. redness. light sensitivity. conjunctivitis. corneal damage. Vapors are also irritating.

**Skin Contact:** Causes mild to moderate irritation. Contact may cause: drying, redness, stinging, pain. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

**Skin Absorption:** May be harmful if absorbed through skin.

**Inhalation:** May cause moderate irritation. Vapors may irritate: nose, respiratory tract, eyes. Vapors may cause: central nervous system depression. Symptoms may include: burning sensation, headache, dizziness, tremors, nausea, vomiting, drowsiness, faintness, hypotension, hypothermia, circulatory failure, respiratory arrest, death.

**Ingestion:** May cause moderate irritation. May be harmful or fatal if swallowed. May cause: gastrointestinal irritation, nausea, vomiting, diarrhea, central nervous system depression, inebriation, anesthesia, coma, respiratory failure, kidney damage, death in significant exposures. Symptoms may include: headache, tremors, fatigue, hallucinations, distorted perceptions, convulsions. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

**Medical Conditions Aggravated by Exposure to Product:** Liver disorders, Eye disorders, Skin disorders, Central nervous system disorders, Impaired respiratory function, Kidney disorders, Respiratory system disorders. Persons also exposed to acetic acid or propanol might be more sensitive, as these are metabolites of propyl acetate.

**Other:** Ethyl Alcohol:

Chronic: May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, and mental retardation. Avoid simultaneous exposure to Isopropyl Alcohol and haloalkanes, such as Chloroform, Trichloroethane and Carbon Tetrachloride. Coexposure greatly increases the liver and kidney toxic effects of these haloalkanes, leading to hepatitis and kidney failure. Liver damage may be evidenced by loss of appetite, jaundice and pain in the upper abdomen on the right side.

**Cancer Information:**

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicological Information:** No data available.

**Chemical Fate Information:** No data available.

## 13. DISPOSAL CONSIDERATIONS

**Hazardous Waste Number:** D001

**Disposal Method:** Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do NOT dump into any sewers, on the ground, or into any body of water.

## 14. TRANSPORT INFORMATION

**DOT (Department of Transportation):**

<b>Identification Number:</b>	UN1993
<b>Proper Shipping Name:</b>	Flammable Liquid, N.O.S. (Contains Ethyl Alcohol, Isopropyl Alcohol)
<b>Hazard Class:</b>	3
<b>Packing Group:</b>	II
<b>Label Required:</b>	FLAMMABLE

**15. REGULATORY INFORMATION**

**TSCA Inventory Status:** All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**SARA Title III Section 311/312 Category Hazards:**

**Immediate (Acute)**      **Delayed (Chronic)**      **Fire Hazard**      **Pressure Release**      **Reactive**  
Yes                              Yes                              Yes                              No                              No

<b>Regulated Components:</b>	<b>CAS</b>	<b>CERCLA</b>	<b>SARA</b>	<b>SARA</b>	<b>U.S.</b>	<b>WI</b>	<b>Prop</b>
<b>Component</b>	<b>Number</b>	<b>RQ</b>	<b>EHS</b>	<b>313</b>	<b>HAP</b>	<b>HAP</b>	<b>65</b>
Ethyl Alcohol	64-17-5	No	No	No	No	No	Yes*
Isopropyl Alcohol	67-63-0	No	No	No	No	No	No

**Note:** \*Ethyl alcohol in alcoholic beverages is listed.

**16. OTHER INFORMATION**

**Hazard Rating System**

**Health:** 2\*  
**Flammability:** 3  
**Reactivity:** 0

\* = Chronic Health Hazard

**NFPA Rating System**

**Health:** 2  
**Flammability:** 3  
**Reactivity:** 0  
**Special Hazard:** None

**MSDS Abbreviations**

**N.A. = Not Applicable**  
**N.D. = Not Determined**  
**HAP = Hazardous Air Pollutant**  
**VOC = Volatile Organic Compound**  
**C = Ceiling Limit**  
**N.E./Not Estab. = Not Established**

**MSDS Prepared by:** JB

**Reason for Revision:** Changes made throughout the SDS. New format.

**Revised:** 01-17-2014

**Replaces:** 07-13-2009

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.