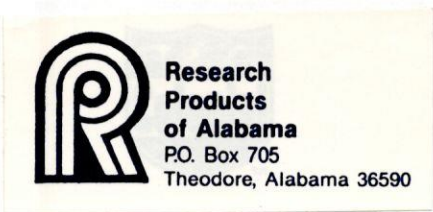


SAFETY DATA SHEET



SECTION 1 · COMPANY AND PRODUCT IDENTIFICATION

**PRODUCT**  
Product Name: ETHANOL SIS GFC 200 / SIS C 200  
Control Number: 00357  
Product Description: Ethyl Alcohol

**COMPANY IDENTIFICATION**  
Supplier: RESEARCH PRODUCTS, INC.  
6311 HIGHWAY 90 W.  
THEODORE, AL. 36590  
251-653-0030  
24 Hour Emergency Telephone: (800)-424-9300 CHEMTREC  
General Information: (912) 236-1331

SECTION 2· HAZARDS IDENTIFICATION

**GHS Classification:**  
Flammable liquids Category 2  
Eye irritation Category 2B  
Skin irritation, Category 2

**GHS Label elements, including precautionary statements**

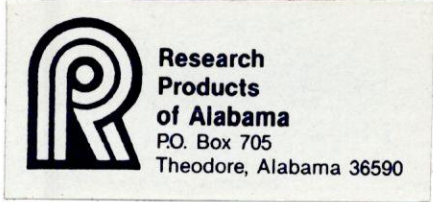


**Signal Word:** Danger

**Hazard statement(s)**  
H225 Highly flammable liquid and vapor.  
H315 + H320 Causes skin and eye irritation

**Precautionary statement(s)**  
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 protective gloves/ protective clothing/ eye protection/ face protection.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
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 for extinction.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/ container to an approved waste disposal plant.

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SECTION 3 · COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME          | CAS Number | %WT   |
|------------------------|------------|-------|
| Ethanol Alcohol        | 64-17-5    | 80-90 |
| Ethyl Acetate          | 141-78-6   | 01-10 |
| Methyl Alcohol         | 67-56-1    | 01-10 |
| Methyl Isobutyl Ketone | 108-10-1   | <1.0  |

SECTION 4 · FIRST AID MEASURES

**FIRST AID PROCEDURES:**  
**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes. Seek medical attention.  
**Skin Contact:** Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation develops.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.  
**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical attention.

SECTION 5 · FIRE FIGHTING MEASURES

**Suitable Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Hazardous combustion products:** Oxides of carbon and various hydrocarbons  
**Fire Fighting Procedures:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.  
**Unusual Fire and Explosion Hazards:** Containers can build up pressure if exposed to heat and/or fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Vapors will form an explosive mixture with air. Vapors will travel to a source of ignition and flash back.  
**Flammability Classification:** Class IB Flammable Liquid

SECTION 6 · ACCIDENTAL RELEASE and DISPOSAL MEASURES

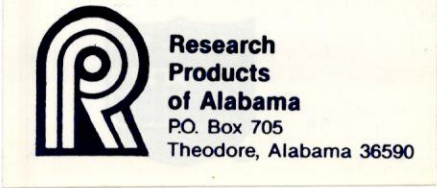
**Spills:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

SECTION 7 · STORAGE AND HANDLING

**Handling:** Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed and tightly sealed when not in use. Avoid contact with skin and eyes.  
Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.  
**Storage:** This material is a static accumulator. Use non-sparking tools. Store in a cool, dry, ventilated area, away from incompatible substances. Store only in approved properly labeled containers. Containers should be grounded and bonded.



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SECTION 8 · EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Engineering Controls:** Provide explosion-proof ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below.

|                         |                        |                |               |
|-------------------------|------------------------|----------------|---------------|
| <b>Exposure Limits:</b> | Ethyl Alcohol          | 1000 ppm ACGIH | 1000 ppm OSHA |
|                         | Methyl Alcohol         | 200 ppm ACGIH  | No OSHA data  |
|                         | Ethyl Acetate          | 400 ppm ACGIH  | 400 ppm OSHA  |
|                         | Methyl Isobutyl Ketone | 50 ppm ACGIH   | 50 ppm OSHA   |

**Personal Protective Equipment (PPE):**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

**Skin:** If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

**Clothing:** Selection of protective clothing depends on work conditions, potential exposure conditions and may include gloves, boots, suits and other protective items.

**Respirators:** Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

SECTION 9 · PHYSICAL AND CHEMICAL PROPERTIES

**Flash Point:** 55.4 °F  
**Autoignition Temperature:** 685.4 °F  
**Boiling Point:** 173 °F  
**Melting Point:** -173 °F  
**Freezing Point:** No available data  
**Vapor Pressure:** 57.3 hPa  
**Vapor Density (Air-1):** 1.6  
**Decomposition Temperature:** No available data  
**Odor/Appearance:** Clear colorless liquid with alcohol odor.

**Flammability Limits:** Lower: 3.3 Upper: 19  
**Specific Gravity:** 0.78-0.80  
**Volatile %:** 100  
**Evaporation Rate (BuAc=1):** No available data  
**Octanol/Water partition coefficient (Kow):** - 0.32  
**pH:** Not Applicable  
**Solubility in Water:** Soluble  
**Viscosity:** No available data

SECTION 10 · STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal use and temperature conditions.  
**Conditions to Avoid:** Keep away from heat, flame and other potential ignition sources.  
**Incompatible Materials:** Strong oxidizing agents, Strong reducing agents, Strong bases  
**Hazardous Polymerization:** Will not occur.

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SECTION 11 · TOXICOLOGICAL INFORMATION

**Signs and Symptoms of Overexposure:**  
**Skin:** Prolonged or repeated skin contact may cause dermatitis, an allergic reaction.  
**Eyes:** Vapors are irritating to the eyes. Liquid contact will cause stinging and tearing.  
**Inhalation:** May cause irritation of the respiratory tract and affect behavior/central nervous system with symptoms similar to ingestion.  
**Ingestion:** May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, and alterations in gastric secretions. May affect behavior/central nervous system, peripheral nervous system (spastic paralysis) vision (diplopia).

**Acute oral toxicity:**  
Ethyl Alcohol LD50 Rat: 7060 mg/kg  
Methyl Alcohol LD50 rat: 5628 mg/kg;  
Ethyl Acetate LD50 Rat: 5620 mg/kg  
Methyl Isobutyl Ketone LD50 rat: 1600-3200 mg/kg

**Acute inhalation toxicity:**  
Ethyl Alcohol LC50 rat: 66,000 mg/l  
Methyl Alcohol LC50 rat: 64000 ppm  
Ethyl Acetate No available data  
Methyl Isobutyl Ketone LC50 rat: 2000-4000 ppm

**Acute dermal toxicity:**  
Ethyl Alcohol LD50 rabbit: 20,000 mg/kg  
Methyl Alcohol LD50 rabbit: 15800 mg/kg  
Ethyl Acetate LD50 rabbit: >18000 mg/kg  
Methyl Isobutyl Ketone LD50 rabbit: >10 ml/kg  
**Carcinogenic Effects:** A4 - Not classifiable for human or animal by ACGIH.

SECTION 12 · ECOLOGICAL INFORMATION

**Aquatic Toxicity:** This product is toxic to fish and food organisms. 96 hour LC50 Oncorhynchus mykiss: 12,900 mg/L (flow-through) (30days old)  
**Bio-accumulative potential:** Bioaccumulation of this product is not expected. This product is readily biodegradable.  
**Mobility:** Large spills are expected to soil penetrate and eventually reach ground water.

SECTION 13 · DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14 · TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class** 3  
**UN Number:** 1987  
**Packaging Group:** 2



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## SECTION 15 · REGULATORY INFORMATION

### US FEDERAL REGULATIONS

#### **Comprehensive Environmental Response and Liability Act (CERCLA)**

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Methanol 5,000 pounds, Methyl Isobutyl ketone 5,000 pounds, Ethyl Acetate 5,000 pounds.

**SARA 302/304** The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

**Toxic Substance Control Act (TSCA):** All components of this product are listed on the TSCA inventory list.

**SARA Section 313 (40 CFR 372) Hazard Categories:** Methanol, Methyl Isobutyl Ketone

**SARA Section 311/312 (40 CFR 370) Hazard Categories:** The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

**Clean Water Act:** This product contains Ethyl Alcohol, Ethyl Acetate and Methyl Isobutyl Ketone chemicals listed as Hazardous Substances under the CWA

**Clean Air Act:** This product contains Ethyl Alcohol, Ethyl Acetate, Methyl Isobutyl Ketone and Isopropyl Alcohol a chemical listed as Hazardous Substances under the CCA.

**California Prop 65:** This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): Ethyl alcohol (developmental toxicity when in alcoholic beverages)

## SECTION 16 · OTHER INFORMATION

**SDS Origination Date:** May 2016

**National Fire Protection Association (NFPA) Ratings:** This information is intended solely for the use of individuals trained in the NFPA system.

**Health:** 1

**Flammability:** 3

**Reactivity:** 0

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