

GHS COMPLIANT SAFETY DATA SHEET

TO COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR.1910.1200 & THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

SECTION 1: IDENTIFICATION

PRODUCT NAME	Isocryl® H-112S
MFR.'S CODE ID/SYNONYMS	Isocryl® H-112S, DS13-33, DS13-31
CAS NUMBER	Mixture (see Sections 3 or 8)
PRODUCT USE	Resin for coatings
RESTRICTIONS ON USE	For industrial use only
MANUFACTURER/SUPPLIER	Estron Chemical, Inc.
ADDRESS	807 North Main Street, Calvert City, KY 42029 USA
GENERAL INFORMATION	(270) 395-4195
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300



SECTION 2: HAZARDS IDENTIFICATION

Signal Word: *Warning*

GHS Classification

Physical	Health	Environmental
Flammable Liquids – Category 3	Acute Toxicity (Oral, Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2B Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 3	Hazardous to the Aquatic Environment, Acute Hazard – Category 3 Hazardous to the Aquatic Environment, Chronic Hazard – Category 3

GHS Label

 Symbols: Flame	 Exclamation Mark
Hazard Statements H226: Flammable liquid and vapour H302: Harmful if swallowed H315: Causes skin irritation H320: Causes eye irritation H332: Harmful if inhaled H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H412: Harmful to aquatic life with long lasting effects	Precautionary Statements <i>Prevention</i> 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/light/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment P280: Wear protective gloves/protective clothing/eye protection/face protection. <i>Response</i> P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302+352: IF ON SKIN: Wash with plenty of soap and water.

	<p>P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304+340+312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</p> <p>P321: Specific treatment (see supplemental first aid instructions on this label)</p> <p>P330: Rinse mouth.</p> <p>P332+313: If skin irritation occurs: Get medical advice/attention.</p> <p>P337+313: If eye irritation persists get medical advice/attention.</p> <p>P362+P364: Take off contaminated clothing and wash it before reuse.</p> <p>P370+378: In case of fire: Use foam, dry chemical powder, carbon dioxide or water fog to extinguish.</p> <p><i>Storage</i></p> <p>P403+233+235: Store in a well ventilated place. Keep container tightly closed. Keep cool.</p> <p>P405: Store locked up.</p> <p><i>Disposal</i></p> <p>P501: Dispose of contents/container to an authorized hazardous waste handler.</p>
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HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	%	CLASSIFICATION	H CODES
Methyl Amyl Ketone	110-43-0	18 - 22	Flammable Liquids – Category 3 Acute Toxicity (Oral, Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2B Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 3 Hazardous to the Aquatic Environment, Chronic Hazard – Category 3	H226 H302, H332 H315 H320 H335, H336 H402 H412

(See Section 8 for Exposure Limits)

NON-HAZARDOUS INGREDIENTS	CAS #	%
Acrylic Polymers	Proprietary	78 - 82

SECTION 4: FIRST-AID MEASURES

SYMPTOMS OF EXPOSURE

ACUTE	Drowsiness or dizziness. Skin and/or eye irritation. Respiratory irritation. Nausea.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Redness or burning of the skin. Headache. Nausea. Unconsciousness.

INHALATION Harmful if inhaled. May cause drowsiness or dizziness. May be irritating to the respiratory tract. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If breathing is labored or with coughing, give 100% supplemental oxygen. If not breathing begin artificial respiration and get medical aid.

SKIN CONTACT Causes skin irritation. If on skin (or hair), remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash thoroughly with soap and water. If skin irritation occurs, consult a doctor.

EYE CONTACT Causes eye irritation. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Wash with plenty of water for 15 minutes. Consult a physician.

INGESTION Harmful if swallowed. Do NOT induce vomiting unless directed by medical personnel. If ingested, call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

SPECIFIC TREATMENT No other specific treatments are known or have been identified.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATION GHS - Flammable Liquid Category 3
U.S - Combustible Liquid Class II

FLAMMABLE LIMITS LEL: 1.1 %, by volume of solvent.
UEL: 7.9 %, by volume of solvent.

HAZARDOUS COMBUSTION PRODUCTS Carbon Dioxide, Carbon Monoxide.

EXTINGUISHING MEDIA Dry Chemical, Foam, CO₂, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS Solvent vapors may travel in the work place. Since even residual amounts can ignite explosively, ensure all ignition sources are removed from the area. Solid stream of water may spread fire.

SPECIAL FIRE FIGHTING PROCEDURES Wear self-contained breathing apparatus and protective suit when fighting fire. Solid streams of water may spread the fire.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

PROTECTIVE EQUIPMENT See Personal Protective Equipment in Section 8.

EMERGENCY PROCEDURES Avoid unnecessary exposure to bystanders, prevent contact with open flames or high heat sources. Isolate the area and eliminate all ignition sources. Ground and bond all containers and handling equipment. Pump with explosion-proof equipment.

ENVIRONMENTAL PRECAUTIONS Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses.

METHODS AND MATERIALS FOR CLEANING UP Absorb the product onto vermiculite, floor absorbent or other absorbent materials, such as dry-lime, sand, or soda ash. Sweep or scoop into a suitable container for disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. Use with adequate ventilation. Ground and bond all containers and handling equipment. Handle in accordance with good industrial hygiene and safety practice. Take precautionary measures against static discharges. Emptied containers may still be hazardous. Do not cut, drill, grind, weld or perform similar actions on or near empty containers. Wear appropriate protective equipment when handling this material (See Section 8).

CONDITIONS FOR SAFE STORAGE Store in cool, dry, well-ventilated areas. Keep containers closed. Do not store near extreme heat, open flame or sources of ignition. The product shelf life is two years from date of manufacture in an unopened container stored at 20 °C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENTS	CAS #	%	ACGIH TLV	OSHA PEL
Acrylic Polymers	Proprietary	78 - 82	<i>None established</i>	<i>None established</i>
Methyl Amyl Ketone	110-43-0	18 - 22	50 ppm	100 ppm

APPROPRIATE ENGINEERING CONTROLS Showers, eyewash stations and explosion-proof ventilation systems.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE Chemical splash goggles or face shield.

SKIN	Wear resistant gloves (consult your safety equipment supplier) and impervious protective clothing as appropriate to prevent skin contact.
RESPIRATORY	An appropriate NIOSH approved respirator where exposure limits are exceeded.
HYGIENE MEASURES	Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face and hands before breaks and at the end of work. Wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid	ODOR	Strong, esteric
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	149 °C @ 760 mmHg
FLASH POINT	38.3 °C (101.0 °F), closed cup	EVAPORATION RATE	0.34 (n-Butyl Acetate)
FLAMMABILITY	GHS - Flammable Liquid Cat. 3; U.S - Combustible Liquid Class II		
FLAMMABLE LIMITS	LOWER 1.1 %, <i>by volume of solvent</i>	UPPER 7.9 %, <i>by volume of solvent</i>	
VAPOR PRESSURE	2.14 mmHg @ 20 °C	VAPOR DENSITY	3.94 (Air = 1)
RELATIVE DENSITY	No test data available	SOLUBILITY IN H ₂ O	<i>Solvent</i> – No data <i>Polymers</i> - Nil
PARTITION COEFFICIENT (n-octanol/water)	<i>Solvent</i> – log Pow: 1.98	AUTOIGNITION TEMPERATURE	393 °C
DECOMPOSITION TEMPERATURE	> 250 °C (Polymer)	VISCOSITY	Gardner, Z6
% VOLATILE	18 - 22%	SOFTENING POINT	No test data available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately.
CONDITIONS TO AVOID	All ignition sources, heat and open flames.
INCOMPATIBLE PRODUCTS	Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Dioxide, Carbon Monoxide.
POSSIBILITY OF HAZARDOUS REACTIONS	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE			
ACUTE	Drowsiness or dizziness. Skin and/or eye irritation. Respiratory irritation. Nausea.		
DELAYED	Stinging, tearing, redness and swelling of the eyes. Redness or burning of the skin. Headache. Nausea. Unconsciousness.		
ACUTE TOXICITY			
INHALATION	Harmful if inhaled. May cause drowsiness or dizziness. May be irritating to the respiratory tract.		
SKIN	Causes skin irritation.		
EYES	Causes eye irritation.		
INGESTION	Harmful if swallowed.		
INHALATION TOXICITY	LC ₅₀ Rat, 4 hours	MAK Polymers	> 16.7 mg/l Not established
DERMAL TOXICITY	LD ₅₀ Rabbit	MAK Polymers	> 2000 mg/kg Not established

SKIN IRRITATION	Draize, Rabbit, 4 hours	MAK Polymers	Skin irritant No data available
EYE IRRITATION	Draize, Rabbit	MAK Polymers	Eye irritant No data available
ORAL TOXICITY	LD ₅₀ Rat	MAK Polymers	1670 mg/kg Not established
SENSITIZATION	Lymph node assay, mouse		Did not cause sensitization
CHRONIC EFFECTS			
CARCINOGENICITY		Not listed as a carcinogen by ACGIH, IARC, or NTP.	
MUTAGENIC EFFECTS		None known	
REPRODUCTIVE TOXICITY		None known	
TARGET ORGAN EFFECTS		Narcotic Effects (Inhalation)	

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	Harmful to aquatic life with long lasting effects.		
TOXICITY TO FISH	LC ₅₀ Pimephales promelas, 96 h	MAK Polymers	131 mg/l Not established
TOXICITY TO DAPHNIA	EC ₅₀ Daphnia magna, 48 h	MAK Polymers	> 100 mg/l Not established
TOXICITY TO ALGAE	EC ₅₀ Selenastrum capr., 72 h	MAK Polymers	98.2 mg/l Not established
PERSISTANCE AND DEGRADABILITY	No data available for polymers. MAK: Activated sludge, 28 days, 69% biodegradation. <i>Readily biodegradable, according to appropriate OECD test</i>		
BIOACCUMULATIVE POTENTIAL	No data available		
MOBILITY IN SOIL	No data available		
OTHER ADVERSE EFFECTS	None known		

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL Dispose of in accordance with local, state and federal regulations. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers may retain some product residues. Vapor from product residues may create a flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been thoroughly cleaned. 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.

US EPA WASTE NUMBER & DESCRIPTION No information available

SECTION 14: TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

U.S. DOT For ground transportation ONLY:
Proper Shipping Name: Combustible liquid, n.o.s. (2-heptanone).
Classification: Comb liq
UN#: NA1993
Packing Group: III
Hazard Label: Combustible Liquid

All other transport:
Proper Shipping Name: Resin solution, *flammable* (2-heptanone).
Classification: 3
UN#: 1866
Packing Group: III
Hazard Label: Flammable Liquid

ICAO / IATA Proper Shipping Name: Resin solution, *flammable* (2-heptanone).
Classification: 3
UN#: 1866
Packing Group: III
Hazard Label: Flammable Liquid

Special Note: The flash point for this material is greater than 100 °F (38 °C). Therefore, in accordance with CFR 49 173.150(f) non-bulk containers (<450 L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste.

SECTION 15: REGULATORY INFORMATION

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

AICC	Australian Inventory of Industrial Chemicals	X
DSL	Canadian Domestic Substances List	X
ECL	Korean Existing Chemicals List	
ENCS	Japanese Existing and New Chemical Substances	X
IECSC	Inventory of Existing Chemical Substances in China	X
INSQ	National Inventory of Chemical Substances in Mexico	
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	X
PICCS	Philippines Inventory of Chemicals and Chemical Substances	X
TCSI	Taiwan Chemical Substances List	X
TSCA	US Toxic Substances Control Act	X
VNECI	Vietnam National Existing Chemical Inventory	X

INTERNATIONAL REGULATIONS

EU REGULATION (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, *Substances of Very High Concern*: This product does not contain any SVHC listed substances.

REACH One or more components of this product are not REACH registered. Import quantities may be subject to limitation.

C.D. 96/82/EC Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10.

FEDERAL REGULATIONS

SARA 313 This product does not contain any chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA Section 311/312 (40 CFR 370) Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Pressure Hazard	No
Reactivity Hazard	No

CERCLA This product, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.

CLEAN WATER ACT This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CLEAN AIR ACT This product does not contain any substances regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990).

OTHER FEDERAL None known

U.S. STATE REGULATIONS

RIGHT TO KNOW The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

CALIFORNIA PROP 65 No substances known to the state of California to cause cancer and/or reproductive toxicity were intentionally included in this product. However, the product may contain unknown trace amounts of substances known to the state of California to cause cancer and/or reproductive toxicity: (*styrene*).

SECTION 16: OTHER INFORMATION

DISCLAIMER This product is intended for industrial use only and should be used in accordance with the manufacturer's recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in 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. 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 responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

DATE OF REVISION February 22, 2023, *replaces the February 6, 2023 version*

REASON FOR REVISION Updated the listings in Section 15.

SDS PREPARED BY Glen Pearson

SDS APPROVED BY Robert Auerbach