

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **355-390 E.S. LACQUER**

Supplier - Manufacturer **Chemcraft International Inc.,**
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Code 355-390

Synonym E.S. LACQUER

Chemical Name Not applicable.

Chemical Family Synthetic polymer in organic solvent. (Paint.)

Chemical Formula Not applicable.

Material Uses Coatings: Surface coatings and finishes.

Product Identification Number (PIN) 1263 PAINT

Section 2. Hazardous Ingredients

Exposure Limits

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀	TLV/PEL
Ethylbenzene	100-41-4	5-10	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	ACGIH (Canada). TWA: 100 ppm STEL: 125 ppm
Xylenes	1330-20-7	10-30	ORAL (LD50): Acute: 4300 mg/kg [Rat].	ACGIH (Canada, 1992). TWA: 100 ppm STEL: 150 ppm TWA: 434 mg/m ³ STEL: 651 mg/m ³
1-Butanol	71-36-3	10-30	ORAL (LD50): Acute: 2510 mg/kg [Rat]. 790 mg/kg [Rat]. DERMAL (LD50): Acute: 5300 mg/kg [Rabbit]. 3400 mg/kg [Rabbit].	Not available.
Isopropanol	67-63-0	1-5	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	ACGIH (Canada, 1994). TWA: 400 ppm STEL: 500 ppm TWA: 983 mg/m ³ STEL: 1230 mg/m ³
Potential additional emission of formaldehyde	50-00-0*	0.1-1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (Canada). STEL: 2 ppm TWA: 0.75 ppm
Ethyl 3-ethoxy propionate	763-69-9	5-10	ORAL (LD50): Acute: 5001 mg/kg [Rat]. 4301 mg/kg [Rat]. DERMAL (LD50): Acute: 10000 mg/kg [Rabbit]. VAPOR (LC50): Acute: >1000 ppm 6 hour(s) [Rat].	Not available.
n-Butyl acetate	123-86-4	10-30	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit]. 8770 mg/kg [Guinea pig].	OSHA (Canada). TWA: 150 ppm STEL: 200 ppm ACGIH (Canada, 2000). TWA: 150 ppm STEL: 200 ppm

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

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Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available.
Odor	Not available.
Taste	Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Not applicable.
Boiling Point	The lowest known value is 82.5°C (180.5°F) (2-Propanol). Weighted average: 137.63°C (279.7°F)
Melting Point	May start to solidify at -48°C (-54.4°F) based on data for: 1,2-Benzenedicarboxylic acid, di-C(8-10)-branched alkyl esters, C9-rich. Weighted average: -76.66°C (-106°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.94 (Water = 1)
Vapor Pressure	The highest known value is 4.4 kPa (33 mmHg) (at 20°C) (2-Propanol). Weighted average: 1.01 kPa (7.58 mmHg) (at 20°C)
Vapor Density	The highest known value is 5.03 (Air = 1) (Propanoic acid, 3-ethoxy-, ethyl ester). Weighted average: 3.52 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 2.11 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water, methanol. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in methanol, diethyl ether, n-octanol, acetone. Insoluble in cold water, hot water.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks and static discharge, of heat.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. (Acetic Acid, Butyl Ester)
Flash Points	The lowest known value is Closed cup: 14°C (57.2°F). (Tagliabue.). (2-Propanol)
Flammable Limits	The greatest known range is LOWER: 2% UPPER: 12% (2-Propanol)
Auto-Ignition Temperature	The lowest known value is 343°C (649.4°F) (1-Butanol).
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Explosion Hazards in Presence of Various Substances	Highly explosive in presence of open flames, sparks and static discharge. Explosive in presence of shocks.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	Not available.
Conditions of Instability	Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, acids, alkalis. Slightly reactive to reactive with organic materials, metals.
Corrosivity	Not available.

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Special Remarks on Reactivity Incompatible with chlorinated compounds. (2-Propanol)

Special Remarks on Corrosivity Corrosive to ferrous metals and alloys. (Phosphoric acid)

Section 6. Toxicological Properties

Routes of Entry Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals Acute oral toxicity (LD50): 790 mg/kg [Rat]. (1-Butanol).
Acute dermal toxicity (LD50): 3400 mg/kg [Rabbit]. (1-Butanol).
Acute toxicity of the vapor (LC50): >1000 ppm 6 hour(s) [Rat]. (Propanoic acid, 3-ethoxy-, ethyl ester).

Effects of Acute Exposure Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (permeator), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching.

Chronic Effects on Humans **CARCINOGENIC EFFECTS:** Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [1-Butanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [2-Propanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Phosphoric acid, monobutyl ester]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Propanoic acid, 3-ethoxy-, ethyl ester].

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Formaldehyde].

The substance is toxic to blood, the nervous system.

Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Special Remarks on Toxicity to Animals Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Formaldehyde)

Special Remarks on Chronic Effects on Humans Prolonged or repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea and central nervous system depression.

High level exposure to Xylene in laboratory animals, often at levels which are toxic to the mother, have affected the development of the fetus. The relevance of this to humans is not known. (Benzene, dimethyl-)

Special Remarks on Other Toxic Effects on Humans Material is irritating to mucous membranes and upper respiratory tract. (Acetic Acid, Butyl Ester)

Exposure Limits Not available.

Section 7. Preventive Measures

Personal Protection Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. Boots.

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Small Spill Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Precautions	Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. Take precautionary measures against electrostatic discharges. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, acids, alkalis.	
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).	
TDG Classification	3	
PIN	1263 PAINT	PG: II
Special Provisions for Transport		
Federal and State Regulations	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, methyl-; Formaldehyde</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Benzene, methyl-</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Formaldehyde</p> <p>Illinois toxic substances disclosure to employee act: Benzene, ethyl-</p> <p>New York release reporting list: Acetic Acid, Butyl Ester</p> <p>New York acutely hazardous substances: Benzene, ethyl-</p> <p>Rhode Island RTK hazardous substances: Benzene, ethyl-</p> <p>Pennsylvania RTK: Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-; Isopropyl alcohol; Acetic Acid, Butyl Ester</p> <p>Florida: Benzene, ethyl-; Acetic Acid, Butyl Ester</p> <p>Minnesota: Benzene, ethyl-; Acetic Acid, Butyl Ester</p> <p>Massachusetts RTK: Benzene, ethyl-; Isopropyl alcohol; Acetic Acid, Butyl Ester</p> <p>New Jersey: Benzene, ethyl-; Benzene, methyl-; Isopropyl alcohol; Acetic Acid, Butyl Ester</p> <p>TSCA 8(b) inventory: Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-; N-Butyl Alcohol; Isopropyl alcohol; Acetic Acid, Butyl Ester</p> <p>TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester</p> <p>TSCA 8(d) H and S data reporting: Benzene, ethyl-</p> <p>TSCA 12(b) annual export notification: Acetic Acid, Butyl Ester</p> <p>SARA 302/304/311/312 extremely hazardous substances: N-Butyl Alcohol; Isopropyl alcohol; Formaldehyde</p> <p>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Benzene, ethyl-: Fire Hazard, Immediate (Acute) Health Hazard; Benzene, methyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Benzene, dimethyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; 2-Propanol: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Isobutyl alcohol: Fire Hazard, Delayed (Chronic) Health Hazard; Acetic Acid, Butyl Ester</p> <p>SARA 313 toxic chemical notification and release reporting: Benzene, ethyl- 5.26%; Benzene, methyl- 0.263%; Benzene, dimethyl- 20.777%; N-Butyl Alcohol 10.512%; Isopropyl alcohol 4.5275%</p> <p>CERCLA: Hazardous substances.: Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, methyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); N-Butyl Alcohol; Isobutyl alcohol; Acetic Acid, Butyl Ester;</p>	
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).	
Other Classifications	WHMIS (Canada)	<p>Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).</p> <p>Class D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).</p> <p>Class D-2A: Material causing other toxic effects (VERY TOXIC).</p> <p>Class D-2B: Material causing other toxic effects (TOXIC).</p>
	HCS (U.S.A.)	<p>Class: Highly toxic.</p> <p>Class: Flammable liquid having a flash point lower than 37.8°C (100°F).</p> <p>Class: Target organ effects.</p> <p>Class: Corrosive material</p>
Hazardous Material Information System (U.S.A.)	Health Hazard	* 3
	Fire Hazard	3
	Reactivity	0
	Personal Protection	

National Fire Protection Association (U.S.A.)	Health	3
	Fire Hazard	3
	Reactivity	0
	Specific Hazard	

Section 8. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Hazardous Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Hazardous Ingestion	Not available.

Section 9. Preparation Information

References	-Manufacturers Material Safety Data Sheets.
Other Special Considerations	Not available.
Related Information	This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.
Preparation Information	Validated by Alfreda Kowalski on 12/21/2004. Verified by Alfreda Kowalski. Printed 1/10/2005.
Information Contact	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097

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