

MATERIAL SAFETY DATA SHEET

LACQUER THINNER (ECONOMY BRAND)

EMERGENCY CONTACT : FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT,
CALL CHEMTREC AT 1-(800)-424-9300, DAY OR NIGHT

<u>INDEX</u>	<u>HMIS</u>	<u>NFPA</u>
4 - Severe	Health ?	Health 2
3 - Serious	Flammability ?	Flammability 3
2 - Moderate	Physical Hazard ?	Reactivity 0
1 - Slight		
0 - Insignificant		

* denotes chronic hazard

Section 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>WT%</u>	<u>NAME</u> <u>SYNONYM</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>		<u>ACGIH TLV®</u>		<u>LD^a</u>	<u>LC^b</u>
			<u>TWA</u> (ppm)	<u>STEL</u> (ppm)	<u>TWA</u> (ppm)	<u>STEL</u> (ppm)		
0 to 63*	Acetone Dimethyl ketone	67-64-1	1000	N.Av.	500	750	5,800	50,100 mg/ m ³ /8 hours
0 to 63*	Ethanol, 2-butoxy- Butyl cellosolve	111-76-2	50 _(skin)	N. Av.	20 _(skin)	N. Av.	470 (220 mg/kg) ^c	450 ppm/4 hours
0 to 63*	Methyl ethyl ketone Butanone, 2-	78-93-3	200	N. Av.	200	300	2,737 (6,480 mg/kg) ^c	23,500 mg/ m ³ /8 hours
0 to 63*	Toluene Methylbenzene	108-88-3	200	300 _(Ceiling)	50 _(skin)	N. Av.	636 (14,100 ul/kg) ^c	49,000 mg/m ³ /4 hours
0 to 63*	Xylene Dimethylbenzene	1330-20-7	100	N. Av.	100	150	4,300(>1,700 mg/kg) ^c	5,000 ppm/4 hours
0 to 63*	Methyl isobutyl ketone Hexone	108-10-1	100	N. Av.	50	75	2,080 (>20 ml/kg) ^c	N. Av.
0 to 63*	Ethyl acetate Acetic acid ethyl ester	141-76-6	400	N. Av.	400	N. Av.	5,620 (>20 ml/kg) ^c	45,000 mg/ m ³ /2 hours
0 to 63*	N-Butyl acetate Butyl ethanoate	123-86-4	150	N. Av.	150	200	10,768 (>17,600 mg/kg) ^c	2,000 ppm/4 hours
0 to 63*	N-Propyl acetate 1-Acetoxypropane	109-60-4	200	N. Av.	200	250	9,370 (20 ml/kg) ^c	N. Av.
0 to 63*	Iso-Propyl acetate Acetoxypropane, 2-	108-21-4	250	N. Av.	100	200	6,750 (>20 ml/kg) ^c	50,000 mg/ m ³ /8 hours
0 to 63*	Ethylbenzene Phenylethane	100-41-4	100	N. Av.	100	125	3,500 (17,800 ul/kg) ^c	N. Av.
0 to 63*	Hexanes N. Av.	110-54-3	500	N. Av.	50 _(skin)	N. Av.	25,000 (2,000 mg/kg) ^c	4,800 ppm/ 4 hours

WT%	NAME SYNONYM	CAS NO.	OSHA PEL		ACGIH TLV®		LD ^a	LC ^b
			TWA (ppm)	STEL (ppm)	TWA (ppm)	STEL (ppm)		
0 to 63*	Heptanes N. Av.	142-82-5	500	N. Av.	400	500	N. Av.	103,000 mg/ m ³ /4 hours
0 to 63*	Distillates (petroleum) hydrotreated light Solvent naphtha (petroleum), heavy aliph., hydrotreated	64742-47-8	300 (based on VM&P Naphtha)	N. Av.	N. Av.	N. Av.	>5,000 (>2,000mg/kg) ^c	N. Av.
0 to 63*	Iso-Butyl acetate Methyl propyl acetate, 2-	110-19-0	150	N. Av.	150	N. Av.	13,400 (>17,400 mg/kg) ^c	N. Av.
0 to 63*	Propylene glycol methyl ether acetate Methoxy-2- propanol acetate, 1-	108-65-6	100 ^d	N. Av.	N. Av.	N. Av.	8,532 (>5,000 mg/kg) ^c	4,345 ppm/ 6 hours
0 to 10*	Ethyl alcohol Ethanol	64-17-5	1,000	N. Av.	1,000	N. Av.	7,060 (20,000 mg/kg) ^c	20,000 ppm/ 10 hours
0 to 10*	Iso-Propyl alcohol Isopropanol	67-63-0	400	N. Av.	400	500	5,045 (12,800 mg/kg) ^c	16,000 ppm/ 8 hours
0 to 10*	N-Butyl alcohol Butanol	71-36-3	100	N. Av.	50 _(skin) ceiling	N. Av.	790 (3,400 mg/kg) ^c	8,000 ppm 4 hours
0 to 4*	Methyl alcohol Methanol	67-56-1	200 _(skin)	N. Av.	200 _(skin)	250	5,628 (15,800 mg/kg) ^c	64,000 ppm/ 4 hours

* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

N. Av. = Not Available

^cSkin-Rabbit LD₅₀

^aOral-Rat LD₅₀ (mg/kg)

^dAIHA recommended

^bInhalation-Rat LC₅₀

Section 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, clear, pale yellow, mild odor.

DANGER!

PHYSICAL HAZARDS

Extremely flammable liquid and vapor.

Vapor may cause flash fire.

HEALTH HAZARDS

May be harmful if inhaled.

May be harmful if absorbed through skin.

May be harmful if swallowed.

May irritate the respiratory tract (nose, throat, and lungs), eyes and skin.

Suspect cancer hazard. Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.

Contains material which may cause birth defects.

Contains material which may cause heart, liver, kidney, eye, and central nervous system damage.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING):	High vapor or mist concentrations may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lings). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, irregular heartbeat, drowsiness, and other central nervous system effects. High concentrations of vapor or mist may cause liver or kidney damage. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.
EYES:	May cause severe irritation, tearing, redness, swelling, burns, and eye damage.
SKIN:	May cause irritation leading to dermatitis or blistering. Butyl cellosolve, hexane, n-butyl alcohol, toluene, and methyl alcohol may be absorbed through the skin and cause harm as noted under INHALATION (BREATHING).
INGESTION (SWALLOWING):	May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under INHALATION (BREATHING). Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	Individuals with pre-existing cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.
CHRONIC:	Prolonged or repeated inhalation may cause heart, liver, central nervous system, and kidney damage; and/or toxic effects as noted under INHALATION (BREATHING). Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis); burns, and/or eye damage. Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis); and/or blistering.
CANCER INFORMATION:	This product contains ethylbenzene CAS 100-41-4 which may cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see SECTION 11: CARCINOGENICITY. Also see SECTION 15: CALIFORNIA.

POTENTIAL ENVIRONMENTAL EFFECTS

Not available. Also see SECTION 12: ECOLOGICAL INFORMATION.

Section 4. FIRST AID MEASURES

INHALATION: (BREATHING)	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
EYES:	If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
SKIN:	Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.
INGESTION: (SWALLOWING)	Do NOT induce vomiting. Immediately get medical attention. Call 1-800-752-7869 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.
NOTE TO PHYSICIANS:	Treat symptomatically and supportively. Increased sensitivity of the heart to Adrenaline (epinephrine) may be caused by overexposure to product. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869 for additional information.

Section 5. FIRE FIGHTING MEASURES

FLASH POINT:
0°F (-18°C) (minimum) Tag Closed Cup

FLAMMABLE LIMITS IN AIR:

LOWER: Not available. UPPER: Not available.

AUTOIGNITION TEMPERATURE:

Not available.

HAZARDOUS COMBUSTION PRODUCTS:

Decomposition and combustion materials may be toxic. Burning may produce phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide, and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY:

Heat, sparks, or flame.

EXTINGUISHING MEDIA:

Carbon dioxide, alcohol-resistant foam, dry chemical, or water spray.

FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire or explosion hazard. Heated containers may rupture, explode, or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

Section 6. ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.

Section 7. HANDLING AND STORAGE

HANDLING:

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, storage tanks, tanker trucks, and rail tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING:

Keep container tightly closed when not in use and during transport. Store containers in a cool place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORT INFORMATION for Packing Group information.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:

Use NIOSH-certified, air-supplied respirators (self-contained breathing apparatus or air-line where concentrations of methanol or may exceed applicable exposure limits. Use NIOSH-certified, full-face respirators with organic vapor cartridges respiratory protective equipment when concentration of vapor or mist of any of the other components exceeds applicable exposure limits. Selection and use of respiratory

protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

- EYE PROTECTION:** Wearing chemical goggles is recommended. Contact lenses may be worn with eye protection.
- SKIN PROTECTION:** Wearing Viton®, polyvinyl alcohol (PVA), laminate (such as Ansell Edmont Barrier® or North Silver Shield/4H®), or equivalent protective gloves is recommended. Use of natural rubber (latex), polyvinyl chloride (PVC), neoprene, or equivalent gloves is not recommended.
- To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.
- PERSONAL HYGIENE:** Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product.
- OTHER PROTECTIVE EQUIPMENT:** Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

- PHYSICAL STATE, APPEARANCE, AND ODOR:** Liquid, clear, pale yellow, mild odor.
- ODOR THRESHOLD:** Not available.
- MOLECULAR WEIGHT:** 58 to 165
- SPECIFIC GRAVITY:** 0.7 to 0.9 (water=1) (approximately)
- DENSITY:** 5.8 to 7.5 LB/US gal (700 to 900 g/l) (approximately)
- VAPOR DENSITY:** 2.0 to 4.3 (air=1)
- VAPOR PRESSURE:** 400 mmHg at 75°F (24°C) (maximum)
- BOILING POINT:** 104° to 400°F (40° to 200°C) initial (approximately)
- FREEZING/MELTING POINT:** -2° to -173°F (-19° to -114°C) (maximum)
- pH:** Not applicable.
- EVAPORATION RATE:** 27.5 (butyl acetate=1) (maximum)
- SOLUBILITY IN WATER:** Slight.
- FLASH POINT:** 0°F (-18°C) (minimum) Tag Closed Cup
- FLAMMABLE LIMITS IN AIR:** LOWER: Not available. UPPER: Not available.
- AUTOIGNITION TEMPERATURE:** Not available.

Section 10. STABILITY AND REACTIVITY

- STABILITY:** Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

INCOMPATIBILITY: Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

REACTIVITY: Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. Also see SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Section 11. TOXICOLOGICAL INFORMATION

SENSITIZATION: Isopropanol has demonstrated human effects of skin sensitization.

Based on best current information, the other components listed in SECTION 2 are not sensitizers.

MUTAGENICITY: Toluene, xylene, ethylbenzene, ethyl alcohol, isopropyl alcohol, methyl alcohol, ethyl acetate, hexane, and butyl cellosolve have demonstrated experimental effects of mutagenicity.

Based on best current information, the other components listed in SECTION 2 are not mutagens.

CARCINOGENICITY: Ethylbenzene is categorized by IARC as possibly carcinogenic to humans (Group 2B). Based on best current information, for the other components listed in SECTION 2, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Also see SECTION 3: CANCER INFORMATION.

REPRODUCTIVE TOXICITY: Ethylbenzene, hexane, and butyl cellosolve have demonstrated animal effects of reproductive toxicity. Xylene toluene, methyl ethyl ketone, isopropyl alcohol, methyl alcohol, and ethyl alcohol have demonstrated experimental effects of reproductive toxicity.

Based on best current information, the other components listed in SECTION 2 are not reproductive toxicants.

Also see SECTION 15: CALIFORNIA.

TERATOGENICITY: Ethylbenzene, butyl cellosolve, hexane, propylene glycol methyl ether acetate, n-butyl acetate, isopropyl alcohol, methyl alcohol, and n-butyl alcohol have demonstrated effects of teratogenicity.

Based on best current information, the other components listed in SECTION 2 are not teratogens.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

Section 12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 0 to 100 WT%; 0 to 7.5 LB/US gal; 0 to 900 g/l
As per 40 CFR Part 51.100(s).

Section 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste.

Section 14. TRANSPORT INFORMATION

DOT: PAINT RELATED MATERIAL, 3, UN1263, PG II CONTAINER MODE: 55 Gal Drum/5 Gal Pail/Gallon

TDG: Paint Related Material, Class 3, UN1263, PG II

EMERGENCY RESPONSE

GUIDE NUMBER: 128
Reference *North American Emergency Response Guidebook*

OTHER TRANSPORTATION INFORMATION

The DOT Transport Information may vary with the container and mode of shipment.

Section 15. REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS

302 AND 304: Based on the ingredients listed in SECTION 2, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS

311 AND 312: This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

SARA SECTION 313: The following components are subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Material	CAS
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3
Methyl ethyl ketone	78-93-3
Xylene	1330-20-7
Ethylbenzene	100-41-4
Butyl cellosolve	111-76-2
Hexane	110-54-3
Methyl alcohol	67-56-1
N-Butyl alcohol	71-36-3
Under the glycol ethers category:	
Propylene glycol methyl ether acetate	108-65-6

CERCLA: Based on the ingredients listed in SECTION 2, this product contains the following "hazardous substances" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

Material	CAS	RQ
Iso-butyl acetate	110-19-0	5000 LB (2270 kg)
N-Butyl acetate	123-86-4	5000 LB (2270 kg)
Methyl isobutyl ketone	108-10-1	5000 LB (2270 kg)
Toluene	108-88-3	1000 LB (454 kg)
Methyl ethyl ketone	78-93-3	5000 LB (2270 kg)
Xylene	1330-20-7	100 LB (45.4 kg)
Ethylbenzene	100-41-4	1000 LB (454 kg)
Acetone	67-64-1	5000 LB (2270 kg)
Methyl alcohol	67-56-1	5000 LB (2270 kg)
N-Butyl alcohol	71-36-3	5000 LB (2270 kg)
Hexane	110-54-3	5000 LB (2270 kg)
Ethyl acetate	141-78-6	5000 LB (2270 kg)

TSCA: All the components of this product are listed on, or are exempted from the requirements to be listed on, the TSCA Inventory.

CALIFORNIA: This product contains detectable amounts of benzene CAS 71-43-2, methylene chloride CAS 75-09-2, trichloroethylene CAS 79-01-6, and perchloroethylene CAS 127-18-4. WARNING: These chemicals are known to the State of California to cause cancer.

This product contains detectable amounts of benzene CAS 71-43-2 and toluene CAS 108-88-3. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

WHMIS: B2, D1A, D2A

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of this product are listed on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

E.E. Zimmerman Company/Elroy Turpentine Company believes that the statements, technical information, and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.