Lacquer Thinner

SECTION 1. IDENTIFICATION

Product Identifier	Lacquer Thinner
Other Means of Identification	13-350, 13-351, 13-354, 13-358, 33-354MFSEXP, 33-808CQ, 33-854CQ, 83-851, 83-854, 83-858, 35-858CQ
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer / Supplier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1632

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquid - Category 2; Acute toxicity (Oral) - Category 3; Acute toxicity (Dermal) - Category 3; Acute toxicity (Inhalation) - Category 3; Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Germ cell mutagenicity - Category 1B; Carcinogenicity - Category 1B; Reproductive Toxicity - Category 2; Specific target organ toxicity (single exposure) - Category 1; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2; Aspiration hazard - Category 1; Aquatic hazard (Acute) - Category 2

GHS Label Elements

Signal Word:
Danger

Hazard Statement(s):

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical, ventilating, lighting, and other equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe fume, mist, vapours, spray.
P264 Wash hands and 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.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Toluene	108-88-3	40-70	
Methanol	67-56-1	10-30	
Xylene (mixed isomers)	1330-20-7	10-30	
Acetone	67-64-1	7-13	
Methyl ethyl ketone	78-93-3	5-10	
Benzene	71-43-2	0.1-1	

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Call a Poison Centre or doctor. If skin irritation occurs get medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Immediate Medical Attention and Special Treatment

Target Organs

Auditory (hearing) system, nervous system, skin.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. May travel a considerable distance to a source of ignition and flash back to a leak or open container. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. May accumulate in hazardous amounts in low-lying areas

especially inside confined spaces, resulting in a fire and/or health hazard. Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: toxic chemicals; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**

Methyl ethyl ketone	200 ppm	300 ppm	200 ppm	300 ppm		
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		
Toluene	20 ppm A4	Not established	100 ppm	150 ppm		
Xylene (mixed isomers)	100 ppm	150 ppm	100 ppm	150 ppm		
Benzene	0.5 ppm A1 Skin	2.5 ppm A1 Skin	1 ppm	5 ppm		

Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: nitrile rubber.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear liquid.
Odour	Hydrocarbon
Odour Threshold	0.16 - 37 ppm (0.6 - 139.2 mg/m3) (Toluene)
pH	Not available
Melting Point/Freezing Point	-95 ºC (-139 ºF) (Toluene) (melting); -95 ºC (-139 ºF) (Toluene) (freezing)
Initial Boiling Point/Range	110.6 ºC (231.1 ºF) (Toluene)
Flash Point	-2 ºC (28 ºF) (closed cup)
Evaporation Rate	2.0 (estimated) (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	36% (Methanol) (upper); 6% (Methanol) (lower)
Vapour Pressure	21.98 mm Hg (2.93 kPa) at 20 ºC (Toluene)
Vapour Density (air = 1)	3.18 (estimated)
Relative Density (water = 1)	0.835 - 0.839 at 20 ºC
Solubility	Slightly soluble in water; Soluble in all proportions in common organic solvents.
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	385 ºC (725 ºF) (Methanol)
Decomposition Temperature	Not available
Viscosity	0.676 mm2/s at 25 ºC (estimated) (kinematic); 0.586 mPa.s at 20 ºC (estimated) (dynamic)

Other Information

Physical State	Liquid

Molecular Weight Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

High temperatures. Accumulation of static charge. Open flames, sparks, static discharge, heat and other ignition sources. Hot surfaces. Prolonged exposure to air. Acidic conditions (low pH). Temperatures above -2.0 ºC (28.4 ºF)

Incompatible Materials

Reacts violently with: strong acids (e.g. hydrochloric acid). Reacts explosively with: strong oxidizing agents (e.g. perchloric acid), oxidizing agents (e.g. peroxides).
Not corrosive to metals.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; very toxic, flammable aldehydes; very toxic, flammable formaldehyde.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Methyl ethyl ketone	11300-11700 ppm (rat) (4-hour exposure)	2737 mg/kg (rat)	> 8050 mg/kg (rabbit)
Methanol	83867.5 mg/m3 (rat) (4-hour exposure)	5628 mg/kg (rat)	15800 mg/kg (rabbit)
Toluene	12500-28800 mg/m3 (rat) (4-hour exposure)	> 5580 mg/kg (rat)	12125 mg/kg (rabbit)
Xylene (mixed isomers)	6350 mg/m3 (male rat) (4-hour exposure)	3523 mg/kg (rat)	> 1700 mg/kg (rabbit)
Benzene	13700 ppm (rat) (4-hour exposure)	930 mg/kg (rat)	8240 mg/kg (rabbit)

LC50: Not applicable.

LD50 (oral): Not applicable.

LD50 (dermal): Not applicable.

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation. (Toluene)

Serious Eye Damage/Irritation

Human experience shows very mild irritation. (Toluene) the vapour also irritates the eyes. Human experience and animal tests show serious eye irritation. The vapour also irritates the eyes. (Acetone). (Methyl ethyl ketone)

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Toxic, can cause death based on human experience and animal tests. Depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. (Methanol). (Methyl ethyl ketone). (Acetone). (Toluene) may be harmful based on human experience and animal tests. Nose and throat irritation.

(Methyl ethyl ketone). (Acetone)

Skin Absorption

May be harmful based on limited evidence. (Toluene). (Methyl ethyl ketone). (Methanol)

Ingestion

Very toxic, can cause death based on human experience. Can cause effects as described for inhalation. Depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. (Toluene) may be harmful based on animal tests. (Acetone) may be harmful If large amounts are swallowed can cause effects as described for inhalation. Depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. (Methyl ethyl ketone) toxic, can cause death based on human experience and animal tests. depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures. (Methanol)

Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited. Death can result.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause If inhaled: effects on the central nervous system, harmful effects on the hearing (auditory) system. Exposure to this chemical and loud noise may cause greater hearing loss than expected from noise exposure alone. (Toluene)
May cause If inhaled: effects on the central nervous system. (Acetone). (Methyl ethyl ketone). (Methanol)
May cause If inhaled: at high concentrations effects on the nervous system and impaired vision including permanent blindness.
May cause If inhaled: exposure to this chemical and loud noise may cause greater hearing loss than expected from noise exposure alone. (Toluene)

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. (Toluene). (Acetone). (Methanol)
Not a skin sensitizer. (Toluene). (Acetone)
May cause an allergic reaction (skin sensitization) based on limited evidence. (Methyl ethyl ketone). (Methanol)

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methyl ethyl ketone	Not Listed	Not Listed	Not Listed	Not Listed
Methanol	Not Listed	Not designated	Not Listed	Not Listed
Toluene	Group 3	A4	Not Listed	Not Listed
Xylene (mixed isomers)	Group 3	A4	Not Listed	Not Listed
Benzene	Group 1	A1	Known carcinogen	Listed

Reproductive Toxicity

Development of Offspring

Animal studies show effects on the offspring. If inhaled: known to cause: decreased weight, long-lasting behavioural changes, hearing loss, miscarriage. (Toluene)
May cause effects on the unborn child based on limited evidence. However, these effects are only seen with significant toxicity in the mothers. If inhaled: known to cause: decreased weight. Embryotoxic (late resorptions)
Studies in people and animals show effects on the unborn child. If inhaled: has been associated with: miscarriage. (Acetone)
Animal studies show effects on the offspring. If swallowed: known to cause: teratogenic(external, soft tissue and skeletal defects) decreased weight.

Sexual Function and Fertility

Conclusions cannot be drawn from the limited studies available. (Toluene) animal studies show effects on sexual function and/or fertility. If swallowed: has been associated with: reduced male fertility.
Studies in people show effects on sexual function and/or fertility. If inhaled: known to cause: reduced male and female fertility, effects in men and women. (Acetone). (Methyl ethyl ketone) does not cause effects on sexual

function or fertility. (Methanol)

Effects on or via Lactation

Can transfer to mother's milk.

Germ Cell Mutagenicity

May be mutagenic based on limited evidence.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methyl ethyl ketone	3130-3320 mg/L (Pimephales promelas (fathead minnow); 96-hour)	Not available		Not available
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		
Toluene	7.63 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water)	8 mg/L (Daphnia magna (water flea); 24 hr)		
Xylene (mixed isomers)	13.4 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water)	150 mg/L (Daphnia magna (water flea))		
Benzene	32000 ug/L (Pimephales promelas (fathead minnow); 48-hour; fresh water; static)	10000 ug/L (Daphnia magna (water flea); 48-hour; fresh water; static)		

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methyl ethyl ketone	400 mg/L (salt water)			
Methanol	7900 mg/L (Lepomis macrochirus (bluegill); 200-hrs)			
Toluene	5.44 mg/L (Oncorhynchus mykiss (rainbow trout))		Not available	
Xylene (mixed isomers)	Not available		Not available	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1263	PAINT RELATED MATERIAL	3	II
US DOT	1263	PAINT RELATED MATERIAL	3	II

Environmental Hazards Potential Marine Pollutant

Special Precautions for User Please note: In containers of 5 L (5Kg) capacity or less this product is classified as a "Limited Quantities""Consumer Commodity" under TDG regulations.
In containers of 5 L (5Kg) capacity or less this product is classified as a "Consumer Commodity" under DOT regulations.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

California Proposition 65:
WARNING: This product contains chemicals known to the State of California to cause birth defects.
WARNING: This product contains chemicals known to the State of California to cause cancer.

SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation	January 04, 2016
Additional Information	We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative. Please send us your request by visiting our website at www.recochem.com. Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.
Disclaimer	Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.