

Astro Product Code # 3102

COMPANY IDENTITY: ASTRO CHEMICALS, INC.
PRODUCT IDENTITY: PACKAGE SUPPLY LACQUER THINNER
NEW MSDS DATE: 11/18/2005

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MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1.
THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)
IMPORTANT: Read this MSDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT IDENTITY: PACKAGE SUPPLY LACQUER THINNER
COMPANY IDENTITY: ASTRO CHEMICALS, INC.
COMPANY ADDRESS: 64-94 SHAW'S LANE
COMPANY CITY: SPRINGFIELD, MA 01102
COMPANY PHONE: 1-413-781-7240
CHEMTREC PHONE: 1-800-424-9300

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CONTAINS: 55-60% TOLUENE (108-88-3)[203-625-9],
10-20% ETHYL ACETATE (141-78-6)[205-500-4],
5-15% N-BUTYL ACETATE (123-86-4)[204-658-1],
5-15% ISOPROPANOL (67-63-0)[200-661-7]
Number in parentheses is CAS #, number in brackets is European EC #.

SECTION 3. HAZARDS IDENTIFICATION

RISK STATEMENTS:

R11 Highly Flammable.
R36/37/38 Irritating to eyes, respiratory system and skin.
R20/65 Harmful by inhalation, may cause lung damage if swallowed.

SAFETY STATEMENTS:

S7 Keep container tightly closed.
S16 Keep away from sources of ignition. No smoking.
S29 Do not empty into drains.
S24/25 Avoid contact with skin and eyes.

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SECTION 4. FIRST AID MEASURES

EYE CONTACT:

For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:

In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration.

SWALLOWING:

If swallowed, get immediate medical advice. Inducing vomiting may cause aspiration into the lungs.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

NFPA Class B extinguishers(Carbon Dioxide or foam)for Class I B liquid fires.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield,bunker coats, gloves & rubber boots).
Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

HIGHLY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE

Keep container tightly closed.
Isolate from oxidizers, heat, sparks, electric equipment & open flame.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.
Empty container very hazardous! Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES

Keep unprotected personnel away. Wear appropriate personal protective equipment given in Section 8. Ventilate spill area. Stop spill at source. Dike & contain.

CLEAN-UP PROCEDURES:

Clean up remainder with absorbent materials. Mop up & dispose of. Persons without proper protection should be kept from area until cleaned up.

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SECTION 7. HANDLING AND STORAGE

HANDLING

Isolate from oxidizers, heat, sparks, electric equipment & open flame.
Use only with adequate ventilation. Avoid breathing of vapor or spray mist.
Avoid contact with skin & eyes.
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.
Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.
Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

STORAGE

Do not store above 49 C/120 F. Store large amounts in structures made for OSHA Class I B liquids. Keep container tightly closed & upright when not in use to prevent leakage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION

LOCAL EXHAUST	: Necessary
MECHANICAL (GENERAL)	: Acceptable
SPECIAL	: None
OTHER	: None

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.
Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

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SECTION 9. PHYSICAL DATA

APPEARANCE : Liquid, Water-White
ODOR : Ester
BOILING RANGE : 72 106 127 C / 162 223 262 F
AUTO IGNITION TEMPERATURE : 398 C / 750 F (Lowest Component)
LOWER FLAMMABLE LIMIT IN AIR (% by vol): 1.7
FLASH POINT (TEST METHOD): -1 C / 29 F (TCC) (Lowest Component)
FLAMMABILITY CLASSIFICATION: Class I B
GRAVITY @ 68/68 F / 20/20 C :
API : 32.6
SPECIFIC GRAVITY (Water=1) : 0.862
POUNDS/GALLON : 7.181
VOC'S (>0.44 Lbs/Sq In) : 100.0 Vol. % / 862.1 g/L / 7.181 Lbs/Gal
TOTAL VOC'S (TVOC) : 100.0 Vol. % / 862.1 g/L / 7.181 Lbs/Gal
NONEXEMPT VOC'S (CVOC) : 100.0 Vol. % / 862.1 g/L / 7.181 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS) : 59.5 Wt. % / 512.9 g/L / 4.272 Lbs/Gal
VAPOR PRESSURE (mm of Hg)@20 C 31.4
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C) 31.4
VAPOR DENSITY (air=1) : 3.0
WATER ABSORPTION : Appreciable
REFRACTIVE INDEX : 1.448
MIXED ANILINE POINT (Acid Insol): 8 C / 48 F

SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable under normal conditions.

CONDITIONS TO AVOID

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

MATERIALS TO AVOID

Isolate from strong oxidizers such as permanganates, chromates & peroxides.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

MATERIAL	CAS #	TWA (OSHA)	TLV (ACGIH)	HAP
Toluene	108-88-3	200 ppm	50 ppm A4	Yes
Ethyl Acetate	141-78-6	400 ppm	400 ppm	No
n-Butyl Acetate	123-86-4	150 ppm	150 ppm	No
Isopropanol	67-63-0	400 ppm	200 ppm A4	No

In addition to EPA Hazardous Air Pollutants showing 'Yes' under "HAP" above, using manufacturers' data, based on EPA Method 311, the following EPA Hazardous Air Pollutants may be present in trace amounts (less than 0.1%):
Benzene, Mixed Xylenes, Ethylbenzene

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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

MATERIAL	CAS #	CEILING	STEL (OSHA/ACGIH)
n-Butyl Acetate	123-86-4	None Known	200 ppm
Isopropanol	67-63-0	None Known	400 ppm

ACUTE HAZARDS

EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis.
Absorption thru skin increases exposure.
Primary irritation to eyes, redness, tearing, blurred vision.
Liquid can cause eye irritation. Wash thoroughly after handling.

INHALATION:

Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful. Breathing vapor can cause irritation. Acute overexposure can cause damage to kidneys, blood, nerves, liver & lungs.

SWALLOWING:

Harmful or fatal if swallowed.
Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

SUBCHRONIC HAZARDS/CONDITIONS AGGREGATED

CONDITIONS AGGREGATED

Chronic overexposure can cause damage to kidneys, blood, nerves, liver & lungs. Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

Leukemia been reported in humans from Benzene.
This product contains less than 178 ppm of Benzene.
Not considered hazardous in such low concentrations.
Absorption thru skin may be harmful. Studies with laboratory animals indicate this product can cause damage to fetus.

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SECTION 12. ECOLOGICAL INFORMATION

MAMMALIAN INFORMATION:

MATERIAL	CAS #	LOWEST KNOWN LETHAL DOSE DATA
Toluene	108-88-3	LOWEST KNOWN LD50 (ORAL) 3000.0 mg/kg(Rats) LOWEST KNOWN LC50 (VAPORS)
Ethyl Acetate	141-78-6	1600 ppm (Rats) LOWEST KNOWN LD50 (SKIN)
Toluene	108-88-3	4000.0 mg/kg (Rabbits)

AQUATIC ANIMAL INFORMATION:

The most sensitive known aquatic group to any component of this product is:
Chub 1000 ppm or mg/L (24 hour exposure).
Keep out of sewers and natural water supplies.

MOBILITY

This material is a mobile liquid.

DEGRADABILITY

This product is partially biodegradable.

ACCUMULATION

This product does not accumulate or biomagnify in the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options.
Recycle / dispose of observing national, regional, state, provincial and local
health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

IF CONTAINER HAS > PRODUCT RQ (SEE SECTION 15) PUT "RQ," BEFORE SHIPPING NAME.
DOT SHIPPING NAME: Flammable Liquids, n.o.s. (Toluene, Ethyl Acetate), 3, UN1993, PG-II
DRUM LABEL: (FLAMMABLE LIQUID)
IATA / ICAO: Flammable Liquids, n.o.s. (Toluene, Ethyl Acetate), 3, UN1993, PG-II
IMO / IMDG: Flammable Liquids, n.o.s. (Toluene, Ethyl Acetate), 3, UN1993, PG-II
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:

SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification

This product contains the indicated <*> toxic chemicals subject to the
reporting requirements of Section 313 of the Emergency Planning & Community
Right-To-Know Act of 1986 & of 40 CFR 372. This information must be
included in all MSDSs that are copied and distributed for this material.

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SECTION 15. REGULATORY INFORMATION (CONTINUED)

SARA TITLE III INGREDIENTS	CAS#	WT. % (REG. SECTION)	RQ(LBS)
*Toluene	108-88-3	59 (311,312,313,RCRA)	1000
Ethyl Acetate	141-78-6	15 (311,312)	5000
n-Butyl Acetate	123-86-4	13 (311,312)	5000

> 1680 LB / 763 KG OF THIS PRODUCT IN 1 CONTAINER EXCEEDS THE "RQ" OF TOLUENE. Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65: This product contains the following chemical known to the State of California to cause reproductive toxicity: Toluene

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries:
Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 2, FLAMMABILITY: 3, REACTIVITY: 0
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

Employees should be made aware of all hazards of this material (as stated in this MSDS) before handling it.

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process. Unless updated, this Material Safety Data Sheet is valid until 11/18/2008.