



COMPANY IDENTITY: T C I PRODUCTS COMPANY  
PRODUCT IDENTITY: DT-5 VIRGIN LACQUER THINNER  
NEW MSDS DATE: 06/02/2009

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#### MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1, using the International Chemical Safety Cards of the Global Harmonizing System.  
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: DT-5 VIRGIN LACQUER THINNER  
COMPANY IDENTITY: T C I PRODUCTS COMPANY  
COMPANY ADDRESS: 420 E DESOTO  
COMPANY CITY: ST. LOUIS, MO 63147  
COMPANY PHONE: 1-314-231-3075  
CHEMTREC PHONE: 1-800-424-9300

#### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CONTAINS: 35-45% METHANOL (67-56-1) [200-659-6],  
25-35% TOLUENE (108-88-3) [203-625-9],  
15-20% ACETONE (67-64-1) [200-662-2],  
0-10% HEPTANE (142-82-5) [205-563-8]

Number in parentheses is CAS #, number in brackets is European EC #.

#### SECTION 3. HAZARDS IDENTIFICATION

EXPOSURE PREVENTION: STRICT HYGIENE!  
AVOID EXPOSURE OF (PREGNANT) WOMEN, ADOLESCENTS, CHILDREN!

#### RISK STATEMENTS:

R36/37/38 Irritating to eyes, respiratory system and skin.  
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.  
R48 Harmful: danger of serious damage to health by prolonged exposure.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R20/65 Harmful by inhalation, may cause lung damage if swallowed.  
R12/13 Extremely Flammable! Serious static electricity fire hazard!  
R18 In use, may form flammable/explosive vapor-air mixture.  
R41 Risk of serious damage to eyes.  
R63 Possible risk of harm to the unborn child.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapors may cause drowsiness and dizziness.

#### SAFETY STATEMENTS:

S36/37 Wear suitable protective clothing and gloves.  
S2 Keep out of the reach of children.  
S7/9 Keep container tightly closed, in a well-ventilated place.  
S16 Keep away from sources of ignition. No smoking.  
S23 Do not breathe gas, fumes, vapor, or spray.  
S24 Avoid contact with skin.  
S29 Do not empty into drains.  
S33 Take precautionary measures against static discharges.



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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, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

##### SWALLOWING:

Induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY. Rest.  
If no medical personnel are available & patient is conscious, ingestion of an alcoholic beverage may prevent blindness, death.  
Do NOT induce vomiting to an unconscious or convulsing person.

#### SECTION 5. FIRE FIGHTING MEASURES

##### FIRE & EXPLOSION PREVENTIVE MEASURES

NO open flames, NO sparks, & NO smoking. Use a closed system, ventilation, explosion-proof electrical equipment, lighting.  
Do NOT use compressed air for filling, discharging, or handling.

##### EXTINGUISHING MEDIA

Use dry powder, AFFF, alcohol-resistant foam, water in large amounts, carbon dioxide.

##### 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

**EXTREMELY 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!



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#### SECTION 6. ACCIDENTAL RELEASE MEASURES

##### PERSONAL PROTECTIVE MEASURES:

EVACUATE DANGER AREA! Consult an expert!  
Vapors may ignite explosively & spread long distances. Prevent vapor buildup.  
Keep unprotected personnel away. Ventilate spill area. Remove all ignition sources.  
Use complete chemical protective suit with self-contained breathing apparatus.

##### CONTAINMENT AND CLEAN-UP MEASURES:

Stop spill at source. Dike and contain. Collect leaking liquid in sealable containers.  
Absorb remaining liquid in sand or inert absorbent. Remove to safe place.  
Do NOT wash away into sewer. Do NOT let this chemical enter the environment.

#### 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

Vapors may ignite explosively & spread long distances. Prevent vapor buildup.  
Put out pilot lights & turn off heaters, electric equipment & other ignition sources during use & until all vapors are gone.  
Keep in fireproof surroundings. Keep separated from strong oxidants, food & feedstuffs. Keep cool.  
Do not store above 49 C/120 F. 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.



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION: (CONTINUED)

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.

SECTION 9. PHYSICAL DATA

APPEARANCE :	Liquid, Water-White
ODOR :	Ketone
BOILING RANGE :	56 68 111 C / 133 156 232 F
AUTO IGNITION TEMPERATURE :	293 C / 560 F (Lowest Component)
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	4.0
FLASH POINT (TEST METHOD):	-16 C / 2 F (TCC) (Lowest Component)
FLAMMABILITY CLASSIFICATION:	Class I B
GRAVITY @ 68/68 F / 20/20 C :	
API :	44.1
SPECIFIC GRAVITY (Water=1) :	0.806
POUNDS/GALLON :	6.710
VOC'S (>0.44 Lbs/Sq In) :	100.0 Vol. % / 805.6 g/L / 6.710 Lbs/Gal
TOTAL VOC'S (TVOC) :	100.0 Vol. % / 805.6 g/L / 6.710 Lbs/Gal
NONEXEMPT VOC'S (CVOC) :	80.0 Vol. % / 647.2 g/L / 5.391 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS) :	71.6 Wt. % / 577.0 g/L / 4.806 Lbs/Gal
VAPOR PRESSURE (mm of Hg)@20 C	97.7
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	66.6
VAPOR DENSITY (air=1) :	1.7
WATER ABSORPTION :	Appreciable
REFRACTIVE INDEX :	1.390
MIXED ANILINE POINT (Acid Insol):	23 C / 74 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

Reacts violently with strong oxidants, causing fire & explosion hazard.  
Attacks many plastics, rubber, coatings,

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION

Will not occur.



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#### SECTION 11. TOXICOLOGICAL INFORMATION

MATERIAL	CAS #	TWA (OSHA)	TLV (ACGIH)	HAP
Methanol	67-56-1	200 ppm S	200 ppm S	Yes
Toluene	108-88-3	200 ppm	50 ppm A4	Yes
Acetone	67-64-1	1000 ppm	500 ppm A4	No
Heptane	142-82-5	500 ppm	400 ppm	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

MATERIAL	CAS #	CEILING	STEL (OSHA/ACGIH)
Methanol	67-56-1	None Known	250 ppm
Acetone	67-64-1	None Known	750 ppm
Heptane	142-82-5	None Known	500 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 harm to kidneys, blood, nerves, liver, lungs.  
Repeated exposure over TLV can cause blindness.  
Use of alcoholic beverages enhances the harmful effect.

##### SWALLOWING:

Can be fatal or cause blindness if swallowed. Cannot be made non-poisonous.  
**POISON !** Can cause irreversible nervous system damage & death.  
Harmful or fatal if swallowed.  
Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.  
The symptoms of chemical pneumonitis may not show up for a few days.

#### SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

##### CONDITIONS AGGRAVATED

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



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#### CHRONIC HAZARDS

##### CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

Pregnant women should avoid use. May cause birth defects.  
Leukemia been reported in humans from Benzene.  
This product contains less than 102 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.  
Depending on degree of exposure, periodic medical examination is indicated.

#### SECTION 12. ECOLOGICAL INFORMATION

##### MAMMALIAN INFORMATION:

MATERIAL	CAS #	LOWEST KNOWN LETHAL DOSE DATA
Methanol	67-56-1	LOWEST KNOWN LD50 (ORAL) 1000.0 mg/kg (Man)
Toluene	108-88-3	LOWEST KNOWN LC50 (VAPORS) 5300 ppm (Mice)
Toluene	108-88-3	LOWEST KNOWN LD50 (SKIN) 4000.0 mg/kg (Rabbits)

##### AQUATIC ANIMAL INFORMATION:

The most sensitive known aquatic group to any component of this product is:  
Mosquito Fish 250 ppm or mg/L (24 hour exposure).  
Keep out of sewers and natural water supplies.  
The substance is toxic to aquatic organisms.  
Bioaccumulation of this chemical may occur in aquatic animals.

##### 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.



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#### SECTION 14. TRANSPORT INFORMATION

IF CONTAINER HAS > PRODUCT RQ (SEE SECTION 15) PUT "RQ," BEFORE SHIPPING NAME.  
DOT SHIPPING NAME: UN1263, Paint Related Material, 3, PG-II  
DRUM LABEL: (FLAMMABLE LIQUID)  
IATA / ICAO: UN1992, Flammable Liquids, Toxic, n.o.s.  
(Methanol, Toluene), 3, (6.1), PG-II  
IMO / IMDG: UN1992, Flammable Liquids, Toxic, n.o.s.  
(Methanol, Toluene), 3, (6.1), PG-II  
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 131

#### 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.

SARA TITLE III INGREDIENTS	CAS#	WT. % (REG. SECTION)	RQ (LBS)
*Methanol	67-56-1	40 (311, 312, 313, RCRA)	5000
*Toluene	108-88-3	31 (311, 312, 313, RCRA)	1000
Acetone	67-64-1	19 (311, 312)	5000

> 3193 LB / 1451 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, China, Europe (EINECS), Japan, Korea, United Kingdom.



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#### SECTION 16. OTHER INFORMATION

##### HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 3, FLAMMABILITY: 3, REACTIVITY: 0  
(Personal Protection Rating to be supplied by user based on use conditions.)  
This information is intended solely for the use of individuals  
trained in the NFPA & HMIS hazard rating systems.

##### EMPLOYEE TRAINING

See Section 3 for Risk & Safety Statements. 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 06/02/2012.