DAT THINNER T – 559 **Safety Data Sheet**

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME	:	DAT THINNER T-559
USE	:	Mixing solvent for rubber adhesive
SUPPLIER	:	Dunlop Adhesives (Thailand) Limited
ADDRESS	:	700/242 Moo1 Bankao Sub-District , Panthong District Chonburi Provice 20160
CONTACT NUMBERS	:	Tel : (038)465 661-2 Fax : (038)465 663

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	C.A.S No.	% by Wt
Toluene	108-88-3	80
Cyclohexane	110-82-7	20

3. HAZARDS INDENTIFICATION

Emergency Overview

POISON! DANGER! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. VAPOR HARMFUL. FLAMMABLE LIQUID AND VAPOR. MAY AFFECT LIVER, KIDNEYS, BLOOD SYSTEM, OR CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

SAF-T-DATA™ Ratings (Provided here for your convenience)

HEALTH RATING	: 2 - Moderate (Life)
FLAMMABILITY RATING	: 3 - Severe (Flammable)
REACTIVITY RATING	: 1 - Slight
CONTACR RATING	: 3 - Severe (Life)
LAB PROrotective Equip	: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
STORAGE COLOR CODE	: Red (Flammable)

POTENTIAL HEALTH EFFECTS

INHALATION : Inhalation may cause irritation of the upper respiratory tract. Symptoms of overexposure may include fatigue, confusion, headache, dizziness and drowsiness. Peculiar skin sensations (e. g. pins and needles) or numbness may be produced. Very high concentrations may cause unconsciousness and death.

INGESTION : Swallowing may cause abdominal spasms and other symptoms that parallel over-exposure from inhalation. Aspiration of material into the lungs can cause chemical pneumonitis, which may be fatal.

SKIN CONTACT : Causes irritation. May be absorbed through skin.

EYE CONTACT : Causes severe eye irritation with redness and pain.

CHRONIC EXPOSURE : Reports of chronic poisoning describe anemia, decreased blood cell count and bone marrow hyperplasia. Liver and kidney damage may occur. Repeated or prolonged contact has a defeating action, causing drying, redness, dermatitis. Exposure to toluene may affect the developing fetus.

AGGRAVATION OF PRE-EXISTING CONDITIONS

: Persons with pre-existing skin disorders or impaired liver or kidney function may be more susceptible to the effects of this substance. Alcoholic beverage consumption can enhance the toxic effects of this substance.

4. FIRST AID MEASURES

INHALATION : Remove affected personnel to fresh air , keep warm and rest. If irritation persists seek medical attention.

INGESTION : Do not induce vomiting. If rapid recovery does not occur, obtain medical attention**.**

SKIN : Remove affected person from source of contamination. Wash thoroughly with soap and water. If irritation persists or a rash develops , seek medical attention.

EYES : Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE FIGHTING MEASURES

SPECIFIC HAZARDS	:	Hazardous combustion products may include carbon monoxide. The vapor is heavier than air, spreads along the ground and distant ignition is possible.
EXTINGUISHING MEDIA	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small spills only.
UNSUITABLE EXTINGUISHING MEDIA	:	Water in a jet
PROJECTION EQUIPMENT	:	Full protective clothing and self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTION WHEN SPILL	:	Avoid contact with skin and eyes. Ventilate contaminated area thoroughly. Do not breathe vapor. Extinguish naked flames. Remove ignition sources. No smoking. Avoid sparks. Evacuate the area of all non-essential personnel. Shut off leaks, if possible without personal risk.
PRECAUTIONS TO PROTECT ENVIRONMENT	:	Do not allow spillages to enter drains or watercourses.
SPILL CLEANUP METHODS	:	Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

7. HANDLING AND STORAGE

USAGE PRECAUTIONS	:	Handle in well ventilated areas. Avoid skin and eye contact.
STORAGE PRECAUTIONS	:	Keep in cool, dry , ventilated storage and closed containers. Keep in original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:
TOLUENE:
- OSHA PERMISSIBLE EXPOSURE LIMITS (PEL):
200 ppm (TWA); 300 ppm (acceptable ceiling conc.); 500 ppm (maximum conc.).
- ACGIH THRESHOLD LIMITS VALUE (TLV):
50 ppm (TWA) skin, A4 - Not Classifiable as a Human Carcinogen.

VENTILATION SYSTEM: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne
Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

PERSONAL RESPIRATORS (NIOSH Approved):
If the exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapor respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

SKIN PROTECTION:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

EYE PROTECTION:
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	**:**	***Clear, colorless liquid.***
Odor	**:**	***Aromatic benzene-like.***
Solubility	**:**	***0.05 gm/100gm water @ 20C (68F).***
Specific Gravity	**:**	***0.86 @ 20C / 4 C***
Density @ 15°C (Kg/L)	**:**	***0.8690 – 0.8730***
pH	**:**	***No information found.***
% Volatiles by volume @ 21C (70F)	**:**	***100***
Boiling Point	**:**	***111C (232F)***
Melting Point	**:**	***-95C (-139F)***
Vapor Density (Air=1)	**:**	***3.14***
Vapor Pressure (mm Hg)	**:**	***22 @ 20C (68F)***
Evaporation Rate (BuAc=1)	**:**	***2.24***

10. STABILITY AND REACTIVITY

STABILITY	**:** Stable under ordinary conditions of use and storage. Containers may burst when heated.
Hazardous Decomposition Products	**:** Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization	**:** Will not occur.
Incompatibilities	**:** Heat, flame, strong oxidizers, nitric and sulfuric acids, chlorine, nitrogen tetraoxide; will attack some forms of plastics, rubber, coatings.
CONDITIONS TO AVOID	**:** Heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA	**:** Oral rat LD50: 636 mg/kg; skin rabbit LD50: 14100 uL/kg; inhalation rat LC50: 49 gm/m3/4H; Irritation data: skin rabbit, 500 mg, Moderate; eye rabbit, 2 mg/24H, Severe. Investigated as a tumorigen, mutagen, reproductive effector.
REPRODUCTIVE TOXICITY	**:** Has shown some evidence of reproductive effects in laboratory animals.

Cancer Lists

---NTP Carcinogen---			
Ingredient	**Known**	**Anticipated**	**IARC Category**
Toluene (108-88-3)	No	No	3

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE : When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day. This material is not expected to significantly bioaccumulate. This material has a log octanolwater partition coefficient of less than 3.0. Bioconcentration factor = 13.2 (eels).

ENVIRONMENTAL TOXICITY : This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

13. DISPOSAL CONSIDERATIONS

PRECAUTIONS	:	Refer to section7 before handing the product or containers
WASTE DISPOSAL	:	Recover or recycle if possible. Otherwise incineration.
PRODUCT DISPOSAL	:	Recover or recycle if possible. Otherwise incineration.
CONTAINER DISPOSAL	:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Send to drum recover or material re-claimer. Residues may cause an explosion. Do not puncture, cut or weld unclean drums.
LOCAL LEGISLATION	:	Comply with local regulations

14. TRANSPORT INFORMATION

ROAD TRANSPORT NOTES : Not classified

RAIL TRANSPORT NOTES : Not classified

SEA TRANSPORT NOTES : Not classified

15. REGULATORY INFORMATION

RISK PHRASES : Not classified

GUIDANCE NOTES : Not classified

16. OTHER INFORMATION

SDS DISTRIBUTION : The information in this document should be made available to all who may handle the product.

DISCLAIMER : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.