Toluene

SECTION 1- IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Toluene
Recommended Uses:	Thinner or cleaning solvent
Supplier:	Omega International Coatings P/L
Street Address	111, Kurrajong Ave, Mount Druitt, NSW, 2770
Telephone Number:	(02) 9832 0000
Fax:	(02) 9677 0566
Emergency phone:	**Poison Information Center**: 13 11 26

SECTION 2- HAZARDS IDENTIFICATION

Health Hazard Classification
This product is classified as hazardous under SafeWork Australia criteria.

Hazard Category
F: Flammable; Xn: Harmful; Xi: Irritant

Risk Phrases
R11: Highly flammable
R20: Harmful by inhalation

Safety Phrases
S16: Keep away from sources of ignition
S25: Avoid contact with eyes
S29: Do not empty into drains、
S33: Take precautionary measures against static discharges

SECTION 3- COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%w/w)
Toluene	108-88-3	>99%
Ingredients determined to be non-hazardous or below the hazardous threshold		TO 100%

SECTION 4- FIRST AID MEASURES

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Eye contact
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin contact
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious inhalation
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

First aid facilities
Provide eye baths and safety showers.

Medical attention
Treat symptomatically.

SECTION 5- FIRE FIGHTING MEASURES

Suitable extinguishing equipment
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray or fog.

Hazard produced
Carbon oxides

Special Remarks on Explosion Hazards
Toluene forms explosive reaction with 1, 3-dichloro-5, 5-dimethyl-2, 4 imidazolididione; dinitrogen tetraoxide; concentrated nitric acid, sulfuric acid + nitric acid; N_2O_4; $AgClO_4$; BrF_3; Uranium hexafluoride; sulfur dichloride. Also forms an explosive mixture with tetranitromethane.

Special protective equipment and precautions for fire fighters
Wear breathing apparatus when fighting fire.

Hazchem Code: 3[Y]E

SECTION 6- ACCIDENTAL RELEASE MEASURES

Minor spill
Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Major spill
Toxic flammable liquid, insoluble or very slightly soluble in water.
Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

SECTION 7- HANDLING AND STORAGE

Precaution for safe handling
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Conditions for safe storage
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Entity	Cas No	Weight%	TWA[1] (ppm)	STEL[2] (ppm)
Toluene	108-88-3	>99%	50	100

[1] Time weighted average concentration
[2] Short-term exposure limit

Engineering controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal protective equipment
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

SECTION9- PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear Liquid
Odour	-	Sweet, pungent, Benzene-like odour
Vapor pressure	kPa	3.8
Boiling Point	^{o}C	110.6
Flash Point	^{o}C	16
Density @ 25^{o}C	g/ml	0.8636
Flammability Limits	%(v/v)	1.1-7.1
Volatile content	%(w/w)	Approx. 100
Solubility in water	-	Insoluble

SECTION 10- STABILITY AND REACTIVITY

Chemical stability
Stable at room temperature and pressure.

Conditions to avoid
Heat, ignition sources (flames, sparks, static), incompatible materials.

Incompatible materials
Oxidizing agents.

Hazardous decomposition products
Carbon oxides.

Special Remarks on Reactivity
Incompatible with strong oxidizers, silver perchlorate, sodium difluoride, Tetranitromethane, Uranium Hexafluoride. Frozen Bromine Trifluoride reacts violently with Toluene at -80 deg. C. Reacts chemically with nitrogen oxides, or halogens to form nitrotoluene, nitrobenzene, and nitrophenol and halogenated products, respectively.

Polymerization
Will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Acute effects
Ingestion
Slightly toxic. Main hazard of ingestion is aspiration of swallowed liquid into lungs, causing chemical pneumonitis.

Eye Contact
Irritating, causing redness and burning sensation.

Skin Contact
Irritating, causing redness and burning sensation.

Inhalation
Harmful by inhalation. The vapour is irritating to the upper respiratory tract.
May cause nausea, dizziness and narcosis.

Chronic effects
Will cause damage to the following organs: blood, kidneys, the nervous system, liver, brain, central nervous system (CNS).

Toxicology information

Chemical Entity	Weight %	Oral LD_{50} (Rat) mg/kg	Dermal LD_{50} (Rat or rabbit) mg/kg	LC_{50} Inhalation (Rat) mgL^{-1}/4 hr
Toluene	<20%	>7000	>2000	>5

SECTION 12- ECOLOGICAL INFORMATION

Harmful to aquatic organisms, will cause long term adverse effects in the aquatic environment.

SECTION 13- DISPOSAL CONSIDERATIONS

Do not let this product enter the environment. Dispose of this material and its container as hazardous waste. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14- TRANSPORT INFORMATION

For local transportation within New Zealand refer NZS 5433:1999: For Australia refers ADG code.

UN No.	1263
Proper Shipping Name	Paint Related Material
DG Class	3
Subsidiary Risk	Not Applicable
Packing Group	II
Hazchem Code	3[Y] E

SECTION 15-REGULATORY INFORMATION

HMIS Code: 230H

SECTION 16- OTHER INFORMATION

Contact Person/Point	Apco Coatings Technical Manager Ph 02 98 32 0000 Mob 0422237710
Other Information	Principal toxic properties of this product are due to the solvent composition and vapour inhalation hazards. Abbreviations: N/A - Not Applicable N/AV - Not Available

Abbreviations:
ADG: Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS Number: Chemical Abstracts Number