Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **TOLONATE X FD 90 B**

Recommended Use of the Chemical and Restrictions on Use Manufacture of paints and varnishes.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
East Melbourne Victoria 3002
Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Flammable liquids - Category 3
Skin Sensitisation - Category 1
Acute Inhalation Toxicity - Category 4
Specific target organ toxicity (single exposure) - Category 3

SIGNAL WORD: WARNING

Hazard Statement(s):
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary Statement(s):

Prevention:
P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground or bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing mist, vapours, spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P370+P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Poisons Schedule (SUSMP): S6 Poison.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Hexamethylene diisocyanate, homopolymer	28182-81-2	ca. 90%	H317 H332 H335
n-Butyl acetate	123-86-4	ca. 10%	H226 H336
Hexamethylene diisocyanate	822-06-0	<0.5%	H302 H330 H319 H335 H315 H334 H317

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:
If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:
If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Normal foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable Extinguishing Media:
Water.

Hazchem or Emergency Action Code: 3Y

Specific hazards arising from the chemical:
Flammable liquid. May form flammable vapour mixtures with air. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Flameproof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. Vapour may travel a considerable distance to source of ignition and flash back.

Special protective equipment and precautions for fire-fighters:
On burning will emit toxic fumes, including those of oxides of carbon , and oxides of nitrogen . Keep containers cool with water spray. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Wash area down with excess water.

7. HANDLING AND STORAGE

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep dry - reacts with water, may lead to drum rupture. Do not store in copper or copper alloy containers. Do not store in tin containers. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Isocyanates, all (as -NCO): 8hr TWA = 0.02 mg/m^3, 15 min STEL = 0.07 mg/m^3, Sen
n-Butyl acetate: 8hr TWA = 713 mg/m^3 (150 ppm), 15 min STEL = 950 mg/m^3 (200 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

`Sen' Notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance and should not be further exposed to the substance.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:
Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, SAFETY SHOES, FACE SHIELD OR AIR MASK, GLOVES (Long).
* Not required if wearing air supplied mask.

Wear overalls, impervious gloves and a positive pressure air supplied full-face respirator. Apply in a spray booth fitted with an effective exhaust system and comply with local regulations applicable to spray painting. The spray booth should be isolated from other people whilst spraying is in progress and until all spray mist has been effectively dispersed. The can may be under pressure. Before opening, place cloth over lid to prevent contents splashing. To open, hold hand firmly on cloth over lid to prevent lid flying off, then lever lid off gradually. Avoid breathing dust when sanding. Wet sand or use a dust mask. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Clear Liquid
Colour:	Colourless to Pale Yellow
Odour:	Solvent
Solubility:	Reacts with water.
Specific Gravity:	1120 kg/m^3 @25°C
Relative Vapour Density (air=1):	>1
Vapour Pressure (20 °C):	11.3 hPa
Flash Point (°C):	48 (Closed cup)
Flammability Limits (%):	1.7-7.6 (volume)
Autoignition Temperature (°C):	425
Boiling Point/Range (°C):	125
Decomposition Point (°C):	Not available
pH:	Not applicable
Viscosity:	ca. 2000 mPa.s @25°C (Dynamic)

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with alcohols, amines, bases, water, aqueous solutions.
Chemical stability:	Stable at ambient temperatures.
Possibility of hazardous reactions:	Reacts with alcohols , amines , bases , water and aqueous solutions , liberating carbon dioxide .
Conditions to avoid:	Avoid exposure to heat, sources of ignition, and open flame.
Incompatible materials:	Incompatible with alcohols , amines , bases , water and aqueous solutions .
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkeness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs. Breathing in vomit may lead to aspiration pneumonia (inflammation of the lung).
Eye contact:	May be an eye irritant.
Skin contact:	Contact with skin may result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
Inhalation:	Material is irritant to the mucous membranes of the respiratory tract (airways). Breathing in vapour can result in headaches, dizziness, drowsiness, and possible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

Acute toxicity: No LD50 data available for the product. However, for the major constituent:
Oral LD50 (rat): >5000 mg/kg

Chronic effects: No mutagenic effects were observed in animal studies.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Persistence/degradability: The material is not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No:	1866
Transport Hazard Class:	3 Flammable Liquid
Packing Group:	III
Proper Shipping Name or Technical Name:	RESIN SOLUTION
Hazchem or Emergency Action Code:	3Y

Marine Transport
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No:	1866
Transport Hazard Class:	3 Flammable Liquid
Packing Group:	III
Proper Shipping Name or Technical Name:	RESIN SOLUTION

Air Transport
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No:	1866
Transport Hazard Class:	3 Flammable Liquid
Packing Group:	III

Proper Shipping Name or Technical Name: RESIN SOLUTION

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Flammable liquids - Category 3
Skin Sensitisation - Category 1
Acute Inhalation Toxicity - Category 4
Specific target organ toxicity (single exposure) - Category 3

Hazard Statement(s):
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Poisons Schedule (SUSMP): S6 Poison.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:
5 Yearly Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.