MATERIAL SAFETY DATA SHEET

1. Identification of Material and Supplier

Product Name: **NA 490 Solvent Cleaner**

Recommended Use: Cleaner/ Thinner.
Other names: 1901 Solvent; Flammable liquids N.O.S.

Company:
Nexus Adhesives Pty Ltd
42 Healey Road,
Dandenong South.
Victoria 3175 Australia
Telephone: +61 3 9706 4022
Telefax number: +61 3 9706 4122

Emergency information:
*0417 489 877 [within Australia]

Contact Poison Information Centre: 13 11 26

Emergency telephone numbers: **(03) 9706 4022 (Mon-Fri: 9am-5pm)**

0431 481 661 (All other hours)

2. Hazards Identification

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

This material **is** *classified as HAZARDOUS according to criteria of NOHSC Australia.*

Classified as a dangerous good according to the Australian Dangerous Good Code- 6th edition.

Risk phrases:

R11 Highly flammable.
R20 Harmful by inhalation.
R65 Harmful- may cause lung damage if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Safety phrases:

S2 Keep out of reach of children.
S23 Do not breathe gas/fumes/vapour/spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.
S51 Use only in well ventilated areas.
S16 Keep away from sources of ignition- No smoking.
S33 Take precautionary measures against static discharges.

3. Composition/Information on Ingredients

Product consists of a blend of solvents including those listed below.

CHEMICAL NAME:	CAS NUMBER:	PROPORTION (w/w):
Toluene	108-88-3	50-100%
Solvent naphtha (petroleum), light aliphatic	64742-89-8	0 - < 50%
Methyl ethyl ketone	78-93-3	0 - < 50%
n-Hexane	110-54-3	< 5%

Other ingredients determined not to be hazardous.

4. First-Aid Measures

Description of necessary first aid measures:

Ingestion:
Do NOT induce vomiting. Seek immediate medical attention. For advice, contact a Poison Information Centre (Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

Eye:
Immediately irrigate the contaminated eye(s) with plenty of water, holding the eyelid(s) open.
If irritation develops and persists, seek medical attention.

Skin:
Remove any contaminated clothing and wash affected areas thoroughly with soap and water.
If irritation develops, seek medical attention. Ensure contaminated clothing is washed before re-use or discard.

Inhaled:
Remove the source of contamination or move the victim to fresh air immediately. If not breathing, apply artificial respiration at once and seek urgent medical advice. If irritation develops and persists, seek medical attention.

First aid facilities:
Eye wash fountain, safety shower and normal wash room facilities.

Medical attention and special treatment:

Advice to doctor: Treat symptomatically. Extreme caution must be taken to prevent aspiration.

Aggravated medical conditions caused by exposure:

Exposure may aggravate existing conditions including skin sensitisation and dermatitis.

5. Fire-Fighting Measures

Special protective precautions and equipment for fire fighters:

Wear full protective clothing and self contained breathing apparatus.
Keep storage tanks cool with water spray as they may explode from heat of fire.

Fire / Explosion hazards: Product is highly flammable. Isolate from sources of heat, naked flames, sparks and strong oxidising materials. Take precautions against static electricity discharges. Earth and bond all process equipment including tanks or drums. Ensure adequate ventilation to prevent an explosive vapour-air mixture. Vapours will travel considerable distances to sources of ignition and flash back. Remove sources of re-ignition.

Suitable extinguishing media:

Use foam, dry chemical or carbon dioxide extinguishers. Do NOT use water jets.

Hazards from combustion products:

Oxides of carbon.

6. Accidental Release Measures

Emergency procedures:

Evacuate area of all unnecessary people. Extinguish or remove all sources of ignition and shut off source of leak if safe to do so. Increase ventilation. Wear full protective equipment and clothing to minimise exposure.

Methods and materials for containment and clean up:

Contain the spill with inert, non combustible, absorbent material. Do NOT use combustible materials such as sawdust. Using non-sparking tools and equipment; collect the material and place into a suitable labelled and sealed container.

Conform to all local, state or federal regulations and guidelines for waste disposal. Do not flush or allow spillage to enter into drains; sewers or watercourses- inform the local authority and the Environmental Protection Authority if this occurs.

7. Handling and Storage

Precautions for safe handling:

Use only in a well ventilated area. Open containers cautiously as contents may be under pressure.
Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapours.
DO NOT store or use in confined spaces. Prevent concentration in hollows and sumps. Do not enter these areas until atmosphere has been checked. Do not use near ignition sources.
Repeated or prolonged exposure with no personal protection should be avoided in order to lessen the possibility of disorders.
It is essential that all who come into contact with this material, maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or going to the toilet.
Misuse of empty containers can be hazardous. Do not pressurise, cut, weld, heat or drill empty containers as they may contain dangerous residues. Residue may ignite with explosive violence if heated sufficiently. Keep empty containers closed with bung in place.

Conditions for safe storage, including any incompatibilities:

Store in a dry, cool, well ventilated area, away from ignition sources, heat, strong oxidising agents, foodstuffs and clothing. Keep containers closed when not in use and protected against physical damage. Inspect regularly for damage or leaks.
Take precautions against static electricity discharges. Use proper grounding procedures. Have appropriate fire extinguishers available in and near areas of storage and handling.
Reference should be made to all local, state and federal regulations as well as Australian Standards AS1940- The storage and handling of flammable and combustible liquids.

8. Exposure Controls / Personal Protection

No National Occupational Health and Safety Commission (NOHSC) exposure standards are assigned for this product. However exposure standards for constituents are listed below. As with all chemicals, exposure should be maintained to the least possible levels.

NOHSC exposure standards:

Toluene: *TWA 50ppm (191mg/m^3); *STEL 150ppm (574mg/m^3)

Methyl Ethyl Ketone: *TWA 150ppm (approx 445mg/m^3); *STEL 300ppm (approx 890mg/m^3)

n-Hexane: *TWA 20ppm (72mg/m³); STEL None allocated

* As listed on the National Occupational Health & Safety Commission's: *National Exposure Standards Database*.

Biological limit values:

No biological limit values are available for this product.

Engineering controls:

The working environment must be adequately ventilated to maintain air concentrations to a minimum and below exposure limits especially where vapours or mists are generated; particularly in enclosed areas where natural ventilation is inadequate. A flame proof exhaust ventilation system or an approved respirator is recommended depending on assessment of local working environment.
Product vapour is heavier than air and will collect at low levels. Hence, ventilate by extraction at low levels.
For further information concerning ventilation, refer to:
AS 1940 – The storage and handling of flammable and combustible liquids &
AS 2430 – Explosive gas atmospheres.

Personal protective equipment:

Respiratory type:	Approved respirators may be necessary to prevent over exposure by inhalation. Available information suggests that an approved respirator with organic vapour filter may be suitable however will vary according to individual circumstances i.e. actual airborne concentrations in local working environment. Hence the user should make the final assessment. Expert advice may be required to make this decision. Refer to AS/NZS 1715 - Selection, use & maintenance of respiratory protective devices and AS/NZS 1716- Respiratory Protective Devices.
Glove type:	Impervious gloves recommended. Due to variations in glove construction and individual circumstances, the user should make a final assessment. Expert advice should be sought. Refer to AS/NZS 2161 Occupational protective gloves- Selection, use and maintenance.
Eye protection:	To prevent eye contact, wear safety glasses, chemical goggles or face shield as appropriate. Refer to AS/NZS 1337-Eye protectors for industrial applications.
Clothing:	Wear impervious protective clothing to prevent skin contact. Discard or wash contaminated clothing before reuse.
Other:	Subsequent to handling product, do not eat or drink until after washing hands thoroughly.

9. Physical and chemical properties

Appearance:	Clear, colourless liquid.
Odour:	Pungent odour.
pH:	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not available.
Boiling point:	IBP: >40 °C
Solubility in water:	Insoluble.
Specific gravity:	Approx. 0.78

Flashpoint:	Lowest solvent FP: <-20°C (Closed cup)
Flammability limits:	Not available.
Ignition temperature:	Not available.

10. Stability and Reactivity

Chemical stability:
Stable under normal conditions of storage and handling.

Conditions to avoid:
Sources of ignition i.e. flames.
Heat i.e. direct sunlight.
Contact with incompatible materials.

Incompatible materials:
Strong oxidising agents.

Hazardous decomposition products:
Oxides of carbon.

Hazardous reactions:
Possible hazardous reaction with strong oxidising agents.

11. Toxicological Information

Health effects from the likely routes of exposure:

Acute

Ingestion:
Harmful- may cause lung damage if swallowed. Ingestion may lead to aspiration of material into the lungs and central nervous system (CNS) depression. CNS effects include dizziness, drowsiness, confusion, headache, muscular weakness and loss of consciousness. Prolonged exposure to a large quantity can ultimately lead to coma and possibly death. Ingestion may also result in gastrointestinal irritation, in particular nausea, abdominal pain, vomiting and diarrhoea.

Eye:
Eye contact and solvent vapour will cause moderate eye irritation. Symptoms may include redness, pain, stinging, tearing or swelling.

Skin:
Skin contact or solvent vapour will cause irritation, possibly including itching, redness or rash. Prolonged and repeated exposure may cause skin dryness or cracking resulting in dermatitis.

Inhalation:
Harmful by inhalation. Product vapour will also cause respiratory irritation. Symptoms of overexposure may include fatigue, headache, dizziness, shortness of breath and possible nausea. Very high concentrations of product vapour can cause central nervous system depression which may lead to loss of coordination, impaired judgement, and if exposure is prolonged, unconsciousness and death.

Chronic

Prolonged and repeated exposure through inhalation, ingestion or skin contact may result in harmful effects including central nervous system depression. Systemic effects of chronic exposure may also include damage to kidneys and liver especially where exposure is repeated and prolonged with no personal protection. Excessive skin exposure may also result in irritation leading to dermatitis.

Other toxicological information:

Repeated inhalation of n-hexane may have effects on the central nervous system and especially the peripheral nervous system, resulting in polyneuropathy. Cessation of exposure is not immediately followed by improvement and symptoms may progress. Final recovery will depend on the severity of the intoxication and may not necessarily be complete. Animal tests have also shown that this substance possibly causes toxic effects upon human reproduction. The n hexane contained in this product is below health hazard concentration cut-offs; however exposure should be reduced to the least possible levels.

Studies on pregnant animals have shown that Toluene has caused developmental toxicity to their unborn. Although there has been no official link, it is advised that as a precaution, pregnant women be prohibited from the use of this product.

12. Ecological Information

Ecotoxicity:
No ecotoxicity data is available for this specific product.

Persistence and degradability:
No data is available for this specific product.

Mobility:
No data is available for this specific product.

Environmental fate (exposure):
No data is available for this specific product.

Bioaccumulative potential:
No data is available for this specific product.

13. Disposal Considerations

Disposal methods and containers:

Dispose of waste product or containers in accordance with all local, state or federal regulations and guidelines for waste disposal. Do not flush unused or waste product directly into the environment i.e. into drains.

14. Transport Information

This product is a Class 3- Flammable liquid in accordance with the Australian Dangerous Good Code- 6th edition.

UN Number:	**1993**
UN Proper Shipping Name:	FLAMMABLE LIQUID N.O.S. (Contains Toluene and Solvent naphtha)
Dangerous goods class:	3
Subsidiary Risk:	None allocated
Packaging Group	II
Hazchem Code:	3[Y]E

Special precautions:

Do not allow containers to be exposed to sources of ignition and heat whilst transporting i.e. direct sunlight.

Class 3 - Flammable Liquids are incompatible in a placard load with any placard load with any of the following:

- Class 1 Explosives;
- Class 2.1 Flammable gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk;
- Class 2.3 Toxic gases;
- Class 4.2 Spontaneously combustible substances;
- Class 5.1 Oxidising substances;
- Class 5.2 Organic peroxides;
- Class 6 Toxic and infectious substances (if the Class 3 dangerous good is nitromethane);
- Class 7 Radioactive material.

15. Regulatory Information

Regulatory status:

All ingredients are listed on the Australian Inventory of Chemical Substances (AICS).

SUSDP Poisons schedule number: Schedule 6.

Labelling requirements of the SUSDP standard do not apply to a poison that is packed and sold solely for dispensary, industrial, laboratory or manufacturing purposes; and is labelled in accordance with the National Occupational Health and Safety Commission's *National Code of Practice for the Labelling of Workplace Hazardous Substances*.

16. Other Information

Abbreviations used in MSDS:

Approx: Approximately.
AS/NZS: Australian Standard / New Zealand Standard.
FP: Flash point.
< : Less than.
> : Greater than.

Reviews

Date	Revision	Sections Revised
16/09/2013	1	1, 16

***Contacts:**
Any other intended applications should be discussed with the manufacturer.

Technical Consultant	Sales
0417 489 877	0448 395 091

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