



SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND THE SUPPLIER

Product name:	SOLUTION 45
Other Names:	Delete
Recommended use:	Ink, Paint and wax remover for sealed surfaces
Supplier:	Challenge Chemicals Australia
ABN:	68 059 129 568
Street address:	6 Butcher Street Kwinana Perth W.A. 6167
Telephone:	(08) 9419 5577
Facsimile:	(08) 9419 4958
Emergency telephone number:	(08) 9419 5577 (7.00am to 4.30pm) 0418 923 266

2. HAZARDS IDENTIFICATION

Hazardous according to criteria of NOHSC.

Hazard Category	Xi, Irritant
R-phrases(s)	R65 R66
S-phrases(s)	S2 S23 S24 S25 S62

3. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Graffiti Remover

Appearance: Clear thin liquid with solvent odour



SAFETY DATA SHEET

CHEMICAL ENTITY	CAS NO.	PROPORTION
Aliphatic Hydrocarbons	64742-47-8	30-60% w/v
Dipropylene Glycol		
Monomethyl Ether	34590-94-8	30-60% v/v
N-Methyl-2-Pyrrolidone	872-50-4	<10% v/v
Other ingredients determined not to be hazardous		<10% v/v

All the constituents of these materials are listed on the Australian Inventory of Chemical Substances (AICS).

Hazard Classification: Hazardous substance
Class: Not applicable
Poisons Schedule: Schedule 5

4. FIRST AID MEASURES

Poison Information Centres in each State capital city can provide additional assistance for scheduled poisons. Ring 13 11 26.

Ingestion: Immediately rinse mouth with water. Give water to drink. Do NOT induce vomiting. If vomiting occurs, place victim's face downwards, head lower than hips to prevent vomit entering lungs. Seek immediate medical assistance.

Eye Contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Seek medical assistance.

Skin Contact: Immediately wash contaminated skin with plenty of water. For gross contamination, immediately drench with water and remove clothing. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from 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. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible.

Notes to physician: Because of risk of aspiration, gastric lavage should only be undertaken after endotracheal intubation



CHALLENGE
CHEMICALS AUST.

ABN: 68 059 129 568



SAFETY DATA SHEET

5. FIRE-FIGHTING MEASURES

Fire fighting further advice: Solution 45 is not flammable but is classified combustible. Class C.1. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

Suitable extinguishing media: Water fog (or if unavailable fine water spray) to cool only otherwise use carbon dioxide and dry chemical powder.

6. ACCIDENTAL RELEASE MEASURES

Slippery when spilt. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination. Contain using sand and soil – prevent runoff into drains and waterways. Use absorbent (soil or sand, inert material, vermiculite). Collect and seal in properly labeled containers for disposal. Dispose of in accordance with applicable local and/or state government regulations. If substantial contamination of sewers or waterways has occurred advise the local emergency services. For small spills flush spill area with copious amounts of water.

7. HANDLING AND STORAGE

Storage: Classified as a C1 (Combustible Liquid) for the purpose of storage and handling in accordance with the requirements of AS 1940:1993. Store in cool area below 40oC and away from heat and ignition sources. Store away from oxidizing agents. Keep containers closed at all times. Wash hands before eating and observe good occupational hygiene.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits.

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia)

However, Exposure standard for constituent:

Aliphatic Hydrocarbon: (1)

In the absence of national exposure standards for this product, it is recommended that the following are adopted: 120mg/m³ TWA (8hr)

Dipropylene Glycol Monomethyl Ether (DPM) (2)

Worksafe Aust recommends TWA = 100ppm (606mg/m³) STEL = 150ppm (909mg/m³)
DPGME can also penetrate intact skin and be absorbed into the body.



SAFETY DATA SHEET

N-Methyl-2 Pyrrolidone (3)

Worksafe Aust recommends TWA = 103mg/m³ (25ppm), 15 min STEL = 309mg/m³ (75ppm)

This exposure standard is a guide to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. 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.

Engineering Measures: Ensure good natural ventilation. In poorly ventilated areas, mechanical ventilation is recommended.

Personal Protection Equipment: Wear protective clothing, impervious gloves (rubber or pvc) safety goggles/glasses. If inhalation risk exists wear organic vapor/particulate respirator or air supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Clear thin liquid with solvent odour.

Specific Gravity:	0.91
Melting Point (C):	Not applicable
Rel Vapour Density:	Not determined
Boiling Point (C):	Not determined
Vapour Pressure:	Not determined
Decomp Point (C):	Not determined
Flash Point:	76oC (PMCC)
Sublimation Point:	Not applicable
Flammability Limits:	Not determined
pH:	Not applicable
Autoignition Temp (C):	Not determined
Viscosity:	Not determined



SAFETY DATA SHEET

% Volatile by Volume:	Nil
Evaporation Rate:	Not determined
Solubility in Water:	Insoluble

For hydrocarbon component LEL 0.6%, UEL 7.0%

10. STABILITY AND REACTIVITY

Stability: Shelf Life – Solution 45 when stored in a cool area is a stable product and no deterioration is anticipated over five years storage.
Hazardous Polymerisation: Will not occur
Conditions to avoid: None known
Incompatible materials: Strong oxidizing/reducing agents
Hazardous decomposition products - CO and NO_x fumes emitted when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

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

Acute Toxicity:

Ingestion: Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain.

Eye Contact: May cause slight and temporary eye irritation. Corneal injury is unlikely.

Skin Contact: Repeated or prolonged skin contact may lead to irritant contact dermatitis in some individuals.

Inhalation: Inhalation of mists may result in respiratory irritation.

For main components the following data is available.

Aliphatic Hydrocarbon (1)

No data available

Dipropylene Glycol Monomethyl Ether (2)

Oral LD₅₀ = 5180 – 5400mg/kg (RAT), 7500 mg/kg DOGS

Inhalation LC₅₀ = 55 – 60mg/L/
4 hr RAT



SAFETY DATA SHEET

Dermal LD50 9500 – 19000 mg/kg RABBITS
Primary skin irritation/rabbit/draize test = non irritant
Primary eye irritation/rabbit/draize test = non irritant
Acute inhalation hazard (rat): no mortalities after the exposure in highly enriched and/or saturated atmosphere at 20oC.

N-Methyl-2-Pyrrolidone (3)

Oral LD50 = 3914 mg/kg RAT
Dermal LD50 = 8000mg/kg RABBIT Slight irritation.
Eye (Rabbit) = Severe irritation.
Inhalation (RAT) At supersaturated (110oC) concentrations no evidence of toxic effects.

Chronic toxicity:

No data available.
Repeated or prolonged skin contact may defat the skin leading to discomfort and dermatitis.

12. ECOLOGICAL INFORMATION

No data available for Solution 45 but the following data is available for the major components.

Dipropylene Glycol Monomethyl Ether (2)

Toxicity to fish LC50 (Pimephales promelas = > 10 000mg/L/96h Environmental protection – Behaviour and environmental fate: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Inhibition of respiration in activated sludge = EC20 = > 1000mg/l (ISO 8192/OECD 209/EEC 88/302 C) This product does not contain organically bound halogen. Elimination information – Test method : OECD 302B/ISO 9888/EEC 88/302 C. Degree of elimination = 90 – 100% Evaluation = easy to eliminate Test method: OECD 301E/EEC 84/449, C.3 Method of analysis: DOC reduction Degree of elimination = > 70% Evaluation = biodegradable.

N-Methyl-2-Pyrrolidone (3)

BIODEGRADABILITY:

WARBURG RESPIROMETRY METHOD: BIODEGRADABLE.

AQUATIC TOXICITY:

BLUEGILL (LEPOMIS MACROCHIRUS) LC50 (AT 22 DEG.C) 832 MG/L:
FATHEAD MINNOW (PIMEPHALES PROMELAS) LC50 (AT 22 DEG.C) 1072 MG/L:
TROUT (SALMO GAIRDNERI) LC50 (AT 12 DEG. C): 3048 MG/L

Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Refer to government authority for disposal recommendations.



SAFETY DATA SHEET

14. TRANSPORT INFORMATION

Classified as Non Dangerous Goods for the purpose of transport by road or rail. Classified as combustible Class C.1 as per AS 1940.1993

UN-NO:	Not applicable
CLASS:	Not applicable
HAZCHEM CODE:	Not applicable
ERG:	Not applicable
PACKAGING GROUP:	Not applicable

Proper shipping name: Not applicable

Segregation Dangerous Goods: Not applicable

15. REGULATORY INFORMATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category	Xi, Irritant
R-phrase(s)	R65 Harmful – May cause lung damage if swallowed R66 Repeated exposure may cause skin dryness or cracking
S-phrase(s)	S2 Keep out of reach of children S23 Do not breathe vapour S24 Avoid contact with skin S25 Avoid contact with eyes S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

Poisons Schedule (AUST) Toxic Substance(NZ):



CHALLENGE
CHEMICALS AUST.

ABN: 68 059 129 568



SAFETY DATA SHEET

16. OTHER INFORMATION

Literary Reference:

1. SDS – March 2009 – Dowanol DPM, IMCD
2. SDS – Jan 2009- Recosol 78, Recochem
3. SDS – Orica Chemicals – NMP – Received May 2011

This SDS summarises at the date of issue or best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Challenge Chemicals Australia and its subsidiaries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

END OF SAFETY DATA SHEET