

Date of issue: 17.01.2005 Replaces Data Sheet of : 22.01.2004

"***" alterations as compared to previous version; n.ap. = not applicable; n.av. = not available



1 Identification of Substance / Preparation and Company

1.1 Identification of Substance or Preparation

Trade Name : AR 700 / AR 728

Use : Graffiti - Remover

1.2 Company / Undertaking Identification

1.2.1 Address of the Company / Undertaking :

PSS INTERSERVICE Ltd., CH - 8954 Geroldswil, Rebbergstr. 10, P.O. Box

Telephone : ++41-44-749 24 24, Fax : ++41-44-749 24 25

1.2.2 Responsible :

CHEMCO, Dipl. - Chemikerin R. Fechner, ☎ ++ 49-5254-9575-05

1.3 Emergency - Telephone

Swiss Toxicological Information Centre: ++41-1-251 51 51

Emergency - Telephone of Company / Undertaking: ++41-44-749 24 24

2 Composition / Information on Ingredients

2.1 Chemical Characterisation:

Mixture of organic solvents

2.2 Dangerous Ingredients:

CAS - No.	Index - No.	EEC - No.	Material	m% - range	Symbol	R - phrases
872-50-4	606-021-00-7	212-828-1	N-Methyl-2-pyrrolidone	20 - 25 %	Xi	R 36/38
96-48-0	n.av.	202-509-5	Gamma - Butyrolactone	10 - 15 %	Xn	R 22-36
68439-46-3	n.v.	n.v.	C9-11 Alcoholethoxylate	1 - 5 %	Xn	R 22-36/38

Remarks:

Classification and labelling of a product is indicated under item 15

Exposure Controls / Personal Protection under item 8

R -phrase(s) under item 16.

3 Hazards Identification

3.1 For Humans (additional information is given under item 11) :

3.1.1 Classification :



R 36/38 Irritating to eyes and skin.

3.1.2 Additional advice :

Inhalation of vapours in high concentration may cause irritation of respiratory system.

May be harmful by ingestion and skin adsorption. Solvents may degrease the skin. Preventive skin protection.

3.2 For the Environment :

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Slightly water contaminating.

3.3 For Materials:

Polyethylene containers must be solvent resistant.

4 First Aid Measures

4.1 Inhalation:

Move out of dangerous area. Move to fresh air in case of accidental inhalation of vapours.

If symptoms persist, call a physician.

4.2 Skin Contact :

Rinse with water.

If skin irritation persists, call a physician.

4.3 Eye Contact :

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

4.4 Ingestion :

Clean mouth with water and drink afterwards plenty of water.

If symptoms persist, call a physician.

4.5 Note to Physician: None.

4.6 Special Equipment: n.av.

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5 Fire Fighting Measures

- 5.1 **Suitable Extinguishing Media :** Foam, powder, carbon dioxide and water spray.
- 5.2 **Extinguishing Media to Avoid :** High volume water jet.
- 5.3 **Fire and Explosion Hazards :**
In the event of fire may be formed: Nitrogen oxides, carbon oxides.
- 5.4 **Additional Information :** Water mist may be used to cool closed containers.
- 5.5 **Special Protective Equipment :**
Wear positive pressure self-contained breathing apparatus.
Wear full protective clothing.

6 Accidental Release Measures

- 6.1 **Personal Precautions :**
See No. 8.3 Personal Protective Equipment.
Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.
- 6.2 **Environmental Precautions and Methods for Cleaning up :**
Do not flush into surface water or sanitary sewer system. Contact the proper local authorities. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
- 6.3 **Further Information :** Wear personal protective equipment.

7 Handling and Storage (For national regulations refer to item 15.2)

- 7.1 **Handling**
 - 7.1.1 **Precautions for Safe Handling :**
Keep away from sources of ignition - No smoking. Keep product and empty container away from heat and sources of ignition. Avoid contact with the skin and the eyes. Do not breathe vapour. Ensure adequate ventilation, especially in confined areas.
 - 7.1.2 **Precautions in Case of Fire and Explosion :**
Keep away from sources of ignition - No smoking.
- 7.2 **Storage**
 - 7.2.1 **Storage Instructions :**
Solvent resistant floor. Keep containers tightly closed in a dry, cool and well-ventilated place.
 - 7.2.2 **Store away from :**
Do not store together with oxidizing agents.
 - 7.2.3 **Further Information on Storage Conditions :**
Ensure adequate ventilation.
 - 7.2.4 **Storage Class :** 10 (VCI - Concept)

8 Exposure Controls and Personal Protection

- 8.1 **Information on System Design :**
Provide sufficient air exchange and/or exhaust in work rooms. Provide personal protective equipment.
- 8.2 **Exposure Limits:**
- 8.2.1 **CAS / Material** **Limit Value according to TRGS 900/ EEC Guideline 2000/39:**
872-50-4 / N-Methyl-2-pyrrolidone 19 ppm, 80 mg / m³, skin resorptive, Y
- 8.3 **Personal Protective Equipment**
 - 8.3.1 **General Protection and Hygiene :**
Avoid contact with the skin and the eyes. Take off all contaminated clothing immediately. Do not breathe vapours/dust. When using, do not eat, drink or smoke. Preventive skin protection.
 - 8.3.2 **Respiratory Protection :** In case of insufficient ventilation, wear suitable respiratory equipment.
Respirator with filter (A).
 - 8.3.3 **Hand Protection :** Solvent-resistant gloves.
Break through time : Refer to manufacturer/supplier for information.
 - 8.3.4 **Eye Protection :** Tightly fitting safety goggles (PVA).
 - 8.3.5 **Skin Protection :** Protective suit.
 - 8.3.6 **Further Information :** No.

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9 Physical and Chemical Properties

9.1	Appearance		
9.1.1	Form : liquid / viscous	9.1.2 Colour : colourless	9.1.3 Odour : solvent - like
9.2	Safety Relevant Data		
9.2.1	pH-value, undiluted :	n.av.,	pH-value, 1% aqueous solution : n.av.
9.2.2	Boiling point / Boiling - range (°C) :	n.av.,	Melting point / Melting range (°C) : n.av.
9.2.3	Flash point (°C, c.c.) :	90	
9.2.4	Flammability (EEC A10/A13) :	n.av.	
9.2.5	Ignition temperature (°C) :	n.av.	
9.2.6	Autoflammability (EEC A16) :	n.av.	
9.2.7	Oxidising properties :	n.ap.	
9.2.8	Explosion hazard :	n.ap.	
9.2.9	Explosion limits (Vol.%) lower :	n.av.,	upper : n.av.
9.2.10	Vapour pressure :	n.av.	
9.2.11	Density (g/ml) :	n.av.	
9.2.12	Solubility (in Water) :	miscible	miscible with most organic solvents
9.2.13	Partition coefficient, n-Octanol/Water :	n.av.	
9.2.14	Viscosity :	n.av.	
9.2.15	Solvent separation test :	n.av.	
9.2.16	Solvent content (m %) :	> 95	
9.2.17	Fat solubility :	yes	
9.3	Further Data		
9.3.1	Thermal decomposition (°C) :	n.av.	
9.3.2	Vapour density (Air = 1) :	n.av.	
9.3.3	Evaporation rate :	n.av.	

10 Stability and Reactivity

10.1	Conditions to Avoid :	None.
10.2	Materials to Avoid :	Strong oxidizing agents.
10.3	Hazardous Decomposition Products :	None.
10.4	Further Information :	None.

11 Toxicological Information

11.1	Toxicological Tests :	
11.1.1	Acute Health Effects :	
	Inhalation, LC ₅₀ rat, (mg/l/4h) :	n.av.
	Ingestion, LD ₅₀ rat, (mg/kg) :	n.av.
	Skin - contact, LD ₅₀ rat, (mg/kg) :	n.av.
	Irritation (to skin / eye) :	Irritating to eyes and skin.
	Sensitisation :	n.av.
11.1.2	Subacute / Chronic Toxicity :	
	Carcinogenicity :	n.av.
	Mutagenicity :	n.av.
	Teratogenicity :	There is no reason to fear a risk when the exposure limit is adhered to (N-Methyle-2-pyrrolidone).
	Narcotic Effects :	Inhalation of vapours in high concentration can cause narcotic effects.
11.2	Practical Experience	
11.2.1	Observations relevant for classification :	None.
11.2.2	Further Observations :	Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
11.3	General Remarks :	
	Classification of the preparation has been done by calculation in accordance with 1999/45/EC.	

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12 Ecological Information

12.1 **Elimination (Persistence and Degradability) :**
 Biodegradable.

12.2 **Behaviour in Sewage Works :**
 Mobility and Accumulation Potential :
 Does not bioaccumulate.

12.3 **Ecotoxic Effects, Aquatic Toxicity :**
 Slightly water endangering.

12.4 **Other Ecological Information**

12.4.1 COD-Value, mg/g : n.av.

12.4.2 BOD₅-Value, mg/g : n.av.

12.4.3 AOX-Remarks : n.ap.

12.4.4 Significant Components : Solvents.

13 Disposal Considerations (For national Regulations refer to item 15.)

13.1 **Residues**

13.1.1 Recommendation : R 1 / D 10 (91/156) Waste - Code - No. 07 07 04
 In addition comply with the regional authorities.

13.1.2 Safe Handling: See item 7 and 15.

13.2 **Contaminated Packaging**

13.2.1 Recommendation : Wash with suitable cleaner. Otherwise as described under Residues.

13.2.2 Safe Handling : As described under Residues.

14 Transport Information

14.1 **Transportation by Road or Railway according to ADR/GGVS and RID/GGVE**

Remarks : Not classified as dangerous in the meaning of transport regulations.

Class : Classification Code : Packing Group:
 Instructions for Transportation in Tanks : Hazard-No. : UN-No. :

14.1.1 **Instruction Concerning Shipper's Declaration and Packaging :**

Volume or Mass	Description of Goods	Risklabel Packing - Code or marginal
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14.1.2 **Listed Cargo as per Appendix B.8 :**

14.1.3 **Additional Designation in the Shipper's Declaration : Inscription on Packaging :**

14.2 **Classification for Transportation by Inland-Navigation according to ADNO/GGVBinSch**

Remarks : Classification has not been done.

Class : Division : Category :

14.2.1 **Description of Goods :**

14.2.2 **Remarks :**

14.3 **Classification for Transportation by Vessels according to IMDG/GGVSee**

Remarks : Not classified as dangerous in the meaning of transport regulations.

Class : UN-No. : Packing Group :

14.3.1 **EmS-Fire / Leak : MFAG-Table :**

14.3.2 **Marine Pollutant :**

14.3.3 **Instruction for Declaration and Labelling :**
 (Packing sizes with possible exemptions not considered)

Proper Shipping Name :

Risk Label :

14.3.4 **Remarks :**

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14.4 Classification for Transportation by Aeroplane according to IATA-DGR/ICAO-TI
Remarks : Not classified as dangerous in the meaning of transport regulations.

Class : UN-No. : Packing Group :

14.4.1 Instruction for Declaration and Labelling :

(Packing sizes with possible exemptions not considered)

Proper Shipping Name :

Risk Label :

Packing Instructions, Passenger : Cargo :

14.4.2 Remarks :

15 Regulatory Information

15.1 Classification according to EEC-Regulations :

Classification required by EEC : Yes.

Hazard Identification : Irritant

Component(s) : Contains N-Methyl-2-pyrrolidone

R-Phrases :

R 36/38 - Irritating to eyes and skin.

Applicable Exemptions : Yes.

Hazard Symbol(s) :



S-Phrases :

S 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 41 - In case of fire and/or explosion do not breathe fumes.

15.1.1 The above mentioned classification is valid for distribution to industrial user.

16 Other Information

R-phrase(s) :

R 36/38 - Irritating to eyes and skin.

Further information to work out the Data sheet:

Data of the producer.

*The statements in this Material Safety Data Sheet were made to the best of our knowledge (1999/45/EC and 2004/73/EC) and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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