

MATERIAL SAFETY DATA SHEET

MSDS

Last changed: 2001-04-03

Internal no.:

Replaces date: 2000-01-20

AGS 2+ Graffiti Remover

1. PRODUCT AND COMPANY

- Approved for use
 Approved for laboratory use
 Approved by Trion Tensid AB

TRADE NAME AGS 2+ Graffiti Remover

GROUP NAME AGS

ART-NO 3640

Producer/Importer TRION TENSID AB

Address Svederusgatan 1-3

Zipcode & City 754 50 UPPSALA

Telephone +46 18 15 61 90

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Contactperson William Stomilovic

Responsible Thorbjörn Bengtsson

Issued by William Stomilovic

2. COMPOSITION OF PRODUCT

No	Ingredients name	CAS-NO	Conc.(weight%)	Rest-list	Classification
1	n-methyl-2-pyrrolidone	872-50-4	10-30%		Xi,36/38
2	gamma-Butyrolacton	96-48-0	10-30%		Xn,22-36
3	Organic acid		1-5%		C,34
Legend		T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, IK=No classification required, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Very flammable, Fo=Flammable, N=Dang. to the environment, Mut=Genotoxic, Sens=Sensitizing, Carc=Carcergen, Repr=Causes birth defects			

INGREDIENT COMMENTS

Other components are not classified and are therefore not in the MSDS.

3. HAZARD IDENTIFICATION



Irritating to eyes and skin.

4. FIRST AID

GENERAL

Contact a physician if necessary and show this safety data sheet.

INHALATION

Move to fresh air.

SKIN CONTACT

Wash skin thoroughly with soap and water.

EYE CONTACT

Flush immediately with plenty of water, also under the eyelids. In case of pain/redness - get medical advice.

INGESTION

Give 1-2 glasses of water or preferably milk to drink.

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5. FIRE FIGHTING MEASURES

PROPER FIRE FIGHTING EQUIPMENT

CO₂, dry chemical, water fog.

IMPROPER FIRE FIGHTING EQUIPMENT

Do not use water jet.

FIRE AND EXPLOSION HAZARDS

May ignite at high temperatures.

PERSONAL PROTECTION WHEN FIRE FIGHTING

Appropriate respiratory protection is necessary.

OTHER INFORMATION

Containers close to fire should be removed immediately or cooled with water.

6. ACCIDENTAL RELEASE MEASURES

SAFETY MEASUREMENTS TO PROTECT PERSONS

Use protective equipment if necessary.

SAFETY MEASUREMENTS TO PROTECT ENVIRONMENT

Dike with sand, earth etc. and collect in appropriate containers according to national regulations.

PROPER METHODS FOR DAMAGE LIMITATION AND CLEAN UP

Absorb with vermiculite, dry sand or earth and transfer to containers. After cleaning, flush away traces with water.

OTHER INFORMATION

Be aware of possible slippery surface.

7. HANDLING AND STORAGE

HANDLING

Keep away from ignition sources. May attack some plastics, rubber and paint.

HANDLING ADVICE

Use containers made of suitable plastic material. Do not mix with bases.

STORAGE

Keep container tightly closed. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with oxidizing or reducing agents.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Ingredients name	CAS-no	TLV value	TLV Year
n-methyl-2-pyrrolidone	872-50-4	200 mg/m ³	1999

EXPOSURE CONTROL

Arrange working conditions and methods to avoid direct contact with the product.

RESP. PROTECTION

Use respiratory protection when handling the product in confined areas. Gas cartridge A (organic substances, brown). Always use a NIOSH-approved respirator.

EYE PROTECTION

Wear approved goggles or face shield.

HAND PROTECTION

Always use gloves when there is a possibility of direct contact with the product. butyl rubber or nitrile rubber. Natural rubber (latex).

SKIN PROTECTION

Wear suitable protective clothing

OTHER INFORMATION

Remove contaminated clothing immediately and wash contaminated skin as soon as possible.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Viscous liquid.		
Colour	Brownish yellow.		
Odour	Slightly.Solvent.		
Solubility	miscible with most organic solvents		
Melting point/range	-20°C	Density	1080 kg/m ³
Expl. limit LEL-UEL, %-%:		Solubility in water	~40%
Vapor pressure		Saturation conc.	
Decomposition temp.		Rel. density sat. air (air=1)	
pH Solution 10%	Approx. 5	Boiling point/range	
Flash point	>100°C	pH concentrate	N/A
Molecular weight		Viscosity	10800 cP
Ignition temp		Smelling limits lo-hi	
Rel. vapor density (air=1)		Rel. evap. velocity	
Air reactive		Water reactive	

10. STABILITY AND REACTIVITY

STABILITY

No particular stability concerns.

MATERIALS TO AVOID

The product may react violently and exothermically with strong alkalines

HAZARDOUS DECOMPOSITION PRODUCTS

Fire causes formation of: Carbon monoxide (CO). Carbon dioxide (CO₂).

OTHER INFORMATION

Stable at normal conditions

11. TOXICOLOGICAL INFORMATION

Acute oral tox.	LD 50 (oral rat) for NMP	3600 mg/kg
Acute derm. tox.		
Inh. toxicity	LC 50 (inhalation rat) for NMP	>5,1 mg/L/4h

OTHER TOX. INFORMATION

LD50/oral/rat = 1580 mg/kg for Gamma-Butyrolakton. LD 50 oral rat for organic acid: 4200 mg/kg. LC 50 inhalation rat: 7.7mg/l

GENERAL

There is little health hazard associated with the normal use of this product. In industry, irritating properties represent the main hazard.

INHALATION

High concentrations may cause: Nausea, vomiting, headache.

SKIN CONTACT

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to the product's defatting properties.

EYE CONTACT

Irritating.May cause intense discomfort, lacrimation and temporary vision impairment.

INGESTION

Nausea, vomiting, diarrhea, abdominal pains. Aspiration of the product into the lungs is unlikely due to its high viscosity.

SENSITISATION

Low risk.

CANCER

Test on raw materials show no risk.

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MUTAGENICITY EFFECTS

None.

REPRODUCTION INJURY EFFECTS

None.

12. ECOLOGICAL INFORMATION

MOBILITY

Emulsifies in water.

BREAKDOWN

Readily biodegradable according to OECD-test 302B.

ACCUMULATION

Does not bioaccumulate significantly.

ECOTOXITY

Exhibits low toxicity to water organisms. LC50/96h/goldfish =220-460-mg/l for gamma-Butyrolactone. LC50/96h/goldfish = 4000 mg/l for NMP.

OTHER INFORMATION

Do not discharge product to sewer or drains

13. DISPOSAL

For larger quantities: Incinerate in an approved industrial incineration facility. Comply with all local and national regulations. Small quantities can be flushed to sea or drain with large amounts of water. Preparation/substance is biodegradable.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME	Not regulated.	
Toll. reg. no.		
HAZCHEM		
ADR (Road)		
UN No.	Dang. goods	No
Class	Label	
Haz. id. no	Marginno.	
RID (Railway)		
UN No.	Dang. goods	No
Class	Label	
Haz.id.no		
IMDG (Sea)		
UN No.	Dang. goods	No
Class	Label	
Packaging group	EmS	
MFAG	Marine Pollutant	
Sub. risk	Page	
IATA (Airplane)		
UN No.	Dang. goods	
Class	Sub. risk	
Label	Packaging group	

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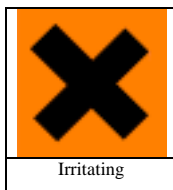
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15. REGULATORY INFORMATION



Classification



COMPOSITION

n-methyl-2-pyrrolidone (10-30%), gamma-Butyrolacton (10-30%), Organic acid (1-5%)

R-PHRASES

R-36/38 Irritating to eyes and skin.

S-PHRASES

S-24/25 Avoid contact with skin and eyes. S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-38 In case of insufficient ventilation, wear suitable respiratory equipment. S-36/39 Wear suitable protective clothing and eye/face protection.

16. OTHER INFORMATION



ISSUED: 2001-04-03

VENDOR NOTES

The safety data sheet has been prepared on the basis of information given by our suppliers and our present knowledge. Information is based on our present knowledge and is therefore not a guarantee of specific properties.