



Material Safety Data Sheet



Graffiti remover

Section 1. Chemical product and company identification

Manufacturer	: HG International b.v.	Code	: 1270500
Address	: Damsluisweg 70 1332 EJ Almere	MSDS#	: 2.02
Country	: Netherlands	Validation date	: 1/12/2009.
Telephone No.:	: +31 (0)36 54 94 700	Print date	: 1/12/2009.
Fax	: +31 (0)36 54 94 744	Responsible name	: P. Stienstra
Internet:	: www.hg.eu	Telephone No.:	: +1.705.726.5445
Supplier	: Solstrand Trading	Fax	: +1.705.734.0857
Address	: 60 Lockhart road Barrie, Ontario L4N 9G8	Country	: Canada
Material uses	: Cleaner.		
 In Case of Emergency	: Chem. Tel Inc. (813) 248 0585 or Toll free (800) 255 3924		

Section 2. Composition, Information on Ingredients

Name	CAS #	% by weight	Exposure limits
ethanol, 2-(2-ethoxyethoxy)-	111-90-0	30 - 100	Not available.
alcohols, c11-14-iso-, c13-rich, ethoxylated	78330-21-9	5 - 15	Not available.
N-Methyl-2-pyrrolidone	872-50-4	5 - 15	Not available.
(R)-p-Mentha-1,8-diene	5989-27-5	1 - 5	Not available.
2-Aminoethanol	141-43-5	1 - 5	Not available.

Section 3. Hazards identification

Physical State and Appearance : Liquid. (pasty)

Emergency overview : Warning!

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF SWALLOWED.
POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Do not ingest. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.

Routes of entry : Dermal contact. Eye contact. Ingestion.

Potential acute health effects

Eyes : Irritating to eyes.

Skin : Irritating to skin. May cause skin sensitization.

Inhalation : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed.

Potential chronic health effects : **CARCINOGENIC EFFECTS**: Classified 3 (Not classifiable for human.) by IARC [(R)-p-Mentha-1,8-diene].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

Medical conditions aggravated by overexposure: : Repeated or prolonged exposure is not known to aggravate medical condition.

Over-exposure signs/symptoms : Not available.

[See toxicological Information \(section 11\)](#)

Continued on next page

Section 4. First aid measures

- Eye Contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
- Skin Contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
- Notes to Physician** : Not available.

Section 5. Fire fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Auto-ignition Temperature** : Lowest known value: 204.44°C (400°F) (ethanol, 2-(2-ethoxyethoxy)-).
- Flash Points** : Closed cup: 96°C (204.8°F). (Pensky-Martens.)
- Flammable limits** : Lower: 0.9% Upper: 11.6%
- Products of combustion** : Decomposition products may include the following materials: carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).
- Fire hazards in presence of various substances** : Not available.
- Explosion hazards in presence of various substances** : Explosive in presence of oxidizing materials, of acids, of alkalis.
- Fire fighting media and instructions** : Use an extinguishing agent suitable for surrounding fires.
No specific hazard.
- Special protective equipment for fire-fighters** : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.
- Special remarks on fire hazards** : No additional remark.
- Special remarks on explosion hazards** : No additional remark.

Section 6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Section 7. Handling and storage

- Handling** : Do not ingest. Wash thoroughly after handling. Keep away from heat, sparks and flame. Ground all equipment containing material. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between 0 to 40°C (32 to 104°F).

Section 8. Exposure Controls, Personal Protection

Engineering controls : Ensure that eyewash stations and safety showers are proximal to the work-station location. After handling, always wash hands thoroughly with soap and water.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

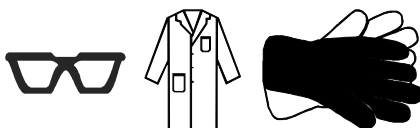
Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protection : Not available.

Personal protective equipment (Pictograms) :



Personal protection in case of a large spill : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

(R)-p-Mentha-1,8-diene
2-Aminoethanol

Exposure limits

Not available.

Not available.

[Consult local authorities for acceptable exposure limits.](#)

Section 9. Physical and chemical properties

Physical State and Appearance : Liquid. (pasty)

Color : Blue.

Odor : Characteristic.

pH : 10 (Conc. (% w/w): 10) [Basic.]

Relative density : 1.035 to 1.075 g/cm³ (20°C / 68°F)

Viscosity : Dynamic: 144927 to 158139 cP

Solubility : Easily soluble in the following materials: methanol, diethyl ether, acetone.
Partially soluble in the following materials: cold water, hot water.

Flash point : Closed cup: 96°C (204.8°F). (Pensky-Martens.)

Explosive properties : Explosive in presence of oxidizing materials, of acids, of alkalis.

Explosion Limits : Lower: 0.9% Upper: 11.6%

Oxidizing properties : Not available.

Physical chemical comments : Not available.

Section 10. Stability and reactivity

Stability and Reactivity : The product is stable.

Conditions of instability : Keep away from heat, sparks and flame.

Incompatibility with various substances : Reactive with oxidizing agents, acids, alkalis.

Hazardous Decomposition Products : Not available.

Hazardous polymerization : Will not occur.

Section 11. Toxicological information

ethanol, 2-(2-ethoxyethoxy)-	LD50	3620 mg/kg	Oral	Rabbit
	LD50	8500 mg/kg	Dermal	Rabbit
	LD50	6000 mg/kg	Dermal	Rat
alcohols, c11-14-iso-, c13-rich, ethoxylated	LD50	200 to 2000 mg/kg	Oral	Rat
N-Methyl-2-pyrrolidone	LD50	3914 mg/kg	Oral	Rat
	LD50	5130 mg/kg	Oral	Mouse
(R)-p-Mentha-1,8-diene	LD50	4400 mg/kg	Oral	Rat
	LD50	5600 mg/kg	Oral	Mouse
2-Aminoethanol	LD50	1720 mg/kg	Oral	Rat
	LD50	620 mg/kg	Oral	Guinea pig
	LD50	700 mg/kg	Oral	Mouse
	LDLo	1400 mg/kg	Oral	Mammal

Chronic effects on humans : **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [(R)-p-Mentha-1,8-diene].
Contains material which causes damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Other toxic effects on humans : Hazardous by the following route of exposure: of skin contact (irritant, sensitizer), of eye contact (irritant).

Special remarks on toxicity to animals : Very low toxicity for humans or animals. (alcohols, c11-14-iso-, c13-rich, ethoxylated)

Special remarks on chronic effects on humans : Not available.

Special remarks on other toxic effects on humans : Not available.

Specific effects

Carcinogenic effects : Contains material which may cause cancer based on animal data. Risk of cancer depends on duration and level of exposure.

Mutagenic effects : No known significant effects or critical hazards.

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

ethanol, 2-(2-ethoxyethoxy)-	Pimephales promelas (LC50)	96 hour(s)	9650 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	>10000 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	13400 mg/l
	Pimephales promelas (LC50)	96 hour(s)	13900 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	21400 mg/l
	Pimephales promelas (LC50)	96 hour(s)	26500 mg/l
alcohols, c11-14-iso-, c13-rich, ethoxylated	Flora (EC50)	72 hour(s)	1 to 10 mg/l
	LEUCISCUS IDUS (LC50)	96 hour(s)	1 to 10 mg/l
	Aquatic Invertebrates. (LC50)	48 hour(s)	1 to 10 mg/l
N-Methyl-2-pyrrolidone	LEUCISCUS IDUS (LC50)	96 hour(s)	4000 mg/l
	Daphnia (LC50)	24 hour(s)	>1000 mg/l
	Algae (LC50)	72 hour(s)	>500 mg/l
(R)-p-Mentha-1,8-diene	Daphnia pulex (EC50)	48 hour(s)	69.6 mg/l
	Pimephales promelas (LC50)	96 hour(s)	0.702 mg/l
2-Aminoethanol	Oncorhynchus mykiss (LC50)	96 hour(s)	150 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	150 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	>200 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	300 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	>300 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	329.16 mg/l

BOD and COD : Not available.

Biodegradable/OECD : Readily biodegradable

Mobility : Not available.

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- Products of degradation** : Decomposition products may include the following materials: carbon oxides (CO, CO₂) and water, nitrogen oxides (NO, NO₂...).
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.
- Special remarks on the products of biodegradation** : Not available.

Section 13. Disposal considerations

- Waste information** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Waste stream** : Not available.

[Consult your local or regional authorities.](#)

Section 14. Transport information

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	Not regulated.	-	-	-		Remarks Keep in frostfree area
TDG Classification	Not regulated.	-	-	-		Remarks Keep in frostfree area
ADR/RID Class	Not regulated.	-	-	-		Remarks Keep in frostfree area
IMDG Class	Not regulated.	-	-	-		Remarks Keep in frostfree area
IATA-DGR Class	Not regulated.	-	-	-		Remarks Keep in frostfree area

Section 15. Regulatory information

- WHMIS (Canada)** : Not controlled under WHMIS (Canada).
No products were found.

International regulations

EINECS : Not available.

DSCL (EEC) : R36/38- Irritating to eyes and skin.
R43- May cause sensitization by skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

International lists : Australia (NICNAS): N-Methyl-2-pyrrolidone; alcohols, c11-14-iso-, c13-rich, ethoxylated; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched; ethanol, 2-(2-ethoxyethoxy)-

China: N-Methyl-2-pyrrolidone; alcohols, c11-14-iso-, c13-rich, ethoxylated; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched; ethanol, 2-(2-ethoxyethoxy)-

Germany water class: N-Methyl-2-pyrrolidone; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; ethanol, 2-(2-ethoxyethoxy)-

Japan (MITI): N-Methyl-2-pyrrolidone; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; ethanol, 2-(2-ethoxyethoxy)-

Japan (MOL): N-Methyl-2-pyrrolidone; (R)-p-Mentha-1,8-diene

Korea (TCCL): N-Methyl-2-pyrrolidone; alcohols, c11-14-iso-, c13-rich, ethoxylated; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-

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.omega.-hydroxy-, branched; ethanol, 2-(2-ethoxyethoxy)-

Philippines (RA6969): N-Methyl-2-pyrrolidone; alcohols, c11-14-iso-, c13-rich, ethoxylated; (R)-p-Mentha-1,8-diene; 2-Aminoethanol; butanedioic acid, dimethyl ester; poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched; ethanol, 2-(2-ethoxyethoxy)-

Section 16. Other information

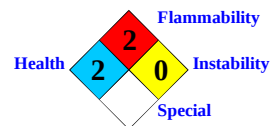
Label Requirements

: CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF SWALLOWED.
POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.)

Health	2
Fire hazard	2
Reactivity	0
Personal protection	C

National Fire Protection Association (U.S.A.)



References

: Not available.

Other special considerations

: Not available.

Date of printing

: 1/12/2009.

Date of issue

: 1/12/2009.

Date of previous issue

: No previous validation.

Version

: 2.02

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