

**Mr. Clean Oil Ex Spray**

**Colloidally Dispersed Aerosol Pack**

Version: 2.0  
Reviewed on: 10. 07. 2010

**1. IDENTIFICATION OF SUBSTANCE OR MIXTURE AND COMPANY**

**Trade name** Mr. Clean Oil Ex Spray  
**REACH registration Use** Preparation according to REACH Regulation (EC) No. 1907/2006  
 Colloidally dispersed aerosol pack with silicon dioxide and organic solvents (free from water).  
**Supplier** RAW Handel und Beratungs GmbH  
 Grünstraße 5  
 D-79232 March-Hugstetten  
 Phone +49 (0) 7665 / 934 29 - 0  
 Fax +49 (0) 7665 / 934 29 - 25  
 These numbers will only be staffed during office hours.  
**Responsible person** Mr J. Wittstock, Phone +49 (0) 7665 / 934 29 - 11  
 This number will only be staffed during office hours.  
**Competent person** Dipl.-Ing. M. Fischer, Phone +49 (0) 163 / 50 737 60  
 This number will only be staffed during office hours.  
 E-mail: [sdb@raw-vertrieb.de](mailto:sdb@raw-vertrieb.de)  
**Emergency information (24 h)** Poison Information Center in Bonn, Phone +49 (0) 228 / 19240

**2. HAZARDS IDENTIFICATION**

**The preparation is classified as dangerous in the sense of the Directive 75/324/EEC.**  
 The preparation is subject to labelling. In all cases please note the information of the Safety Data Sheet.  
**Hazard symbol:** F+  
**Hazard warning label:** Highly flammable  
**The preparation is classified as dangerous in the sense of the Directive 1999/45/EC.**  
 The preparation is subject to labelling. In all cases please note the information of the Safety Data Sheet.  
**Hazard symbol:** Xi  
**Hazard warning label:** Irritant

**Particular risks for humans and the environment:**

R phrases:  
 R12 Highly flammable.  
 R36 Irritating to eyes.  
 R66 Repeated exposure may cause skin dryness or cracking.  
 R67 Vapours may cause drowsiness and dizziness.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical characterisation:**  
 Colloidally dispersed aerosol pack with silicon dioxide and organic solvents (water-free).

**Hazardous ingredients:**

Designation	EC number	CAS No.	Conc. wt. %	Hazard symbol	R phrases	REACH
Ethyl acetate	205-500-4	141-78-6	55	F / Xi	R11, R36, R66,R67	Pre-registered – Date of registration: 30.11.2010
Propane	200-827-9	74-98-6	20	F+	R12	Pre-registered – Date of registration: 30.11.2010
Butane	203-448-7	106-97-8	20	F+	R12	Pre-registered – Date of registration: 30.11.2010

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### 4. FIRST AID MEASURES

- After inhalation:** Low risk when used as intended. Remove affected person from the danger area to fresh air paying attention to self-protection. Keep affected person still, protect person from hypothermia. If there is difficulty in breathing, give oxygen. In case of unconsciousness and if breathing is present, place in the recovery position. If respiratory standstill occurs, use mouth-to-nose resuscitation, when this would be impracticable, use mouth-to-mouth resuscitation. Keep the respiratory tracts free. In case of cardiac arrest (missing heartbeat, pulseless) give cardiopulmonary resuscitation immediately. Securing the vital functions (beating heart and unassisted breathing) has priority over all other measures. After extreme exposure, even when symptoms are absent, always: Ensure that medical treatment is given.
- After skin contact:** Avoid unnecessary skin contact. After skin contact, thoroughly wash the affected skin with soap under running water immediately. Remove contaminated clothing and launder before reuse. Wash hands before eating and drinking. If skin irritation persists or in case of contact with a large skin area: Ensure that medical treatment is given.
- After eye contact:** In case of frostbite by direct contact with propane gas/butane gas escaping from the pressure vessels, at first don't remove contact-lentils (contact lenses) that might be worn. Rinse eye with running water for at least 10 minutes paying attention to protect uninjured eye. Obtain medical assistance.
- After ingestion:** (Of liquefied ethyl acetate): Rinse mouth with water, spit out liquid. Give activated charcoal (stir 3 tablespoons of activated charcoal into a glass of water). Do not induce vomiting. Obtain medical assistance. If spontaneous vomiting occurs, hold affected person's head low with the body in a prone position to help prevent aspiration of vomit.

### 5. FIRE FIGHTING MEASURES

- General information:** The mixture of vapour and air is explosive. Potentially explosive atmospheres. Keep away from sources of ignition (e.g. electrical devices, naked flames, heat sources and sparks). Respect the smoking ban! Welding operations in working areas are not permitted. Operations involving the use of fire shall be carried out only with written permission when the risks of fire and explosion can not be completely eliminated. Use caution with empty vessels; an explosion is possible when ignition occurs. Use spark-free tools. It is necessary to prevent that gases or vapours can reach other areas where sources of ignition are present. Remote ignition caused by creeping vapours is possible.
- Suitable extinguishing media:** Carbon dioxide, extinguishing powder or water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam. Water in a full jet is not suitable.
- In case of fire:** Employ self-contained breathing apparatus and wear full-body protective clothing. Cool surrounding containers and vessels with water spray jet. If possible, take containers out of the danger zone. Increase in pressure, risk of explosion and bursting if heated. Remove sources of ignition. Pay attention to flashback. Stay on the windward side. Use only explosion-proof tools. Avoid penetration into low-lying spaces.

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**6. ACCIDENTAL RELEASE MEASURES**

Remove all sources of ignition.  
Evacuate the affected area, mark out the contaminated area with signs.  
Wear respiratory protection, eye protection, hand protection and protective clothing (refer to section Personal protection).  
Use spark-free tools.  
Then ventilate area and clean contaminated floor and objects.

**Person-specific precautionary measures**

Wear protective clothing, keep unprotected people away, avoid skin and eye contact, provide adequate ventilation.

**Environmental measures**

Check the functioning of the aerosol cans. Prevent solvents escaping from cans from running into waterways, sewage system, pits and cellars. Drinking water can be endangered only if very large amounts enter into subsoil and water courses. Inform the responsible authorities.

**Procedure for picking up / cleaning**

Pick up spilled liquids using a universal binding material (e.g. universal mineral binder) and dispose of properly.

**7. HANDLING AND STORAGE**

**Handling/Storage**

Do not smoke, eat or drink when using the product. Do not spray into eyes. Ensure good ventilation in closed spaces. Keep containers tightly closed and store in a cool place. Keep away from sparks and naked flames.

**Advice on fire and explosion protection**

Use only in well-ventilated areas. Avoid spark formation. Use explosion-proof tools and explosion-proof electrical equipment.

**Requirements for storage rooms and vessels**

Protect from the sun, do not transport inside cars. Observe the storage regulations of TRG 300 for flammable aerosols (TRG: Technische Regeln Druckgase = Technical Regulations for Compressed Gases).

**8. EXPOSURE CONTROLS /PERSONAL PROTECTION**

**Additional information on plant design:** See section 7.

**Components with occupational exposure limits requiring monitoring:**

CAS No.	Substance	Limit value:	Remark:
141-78-6	Ethyl acetate	AGW: 1500 mg/m <sup>3</sup> 400 ml/m <sup>3</sup> BGW: -	Overflow factor : 2 Duration 15 min, average value; 4 times per shift; interval 1 h Category I – Substances for whose located effect an assigned OEL exists or substances with a sensitizing effect to the respiratory tract. A risk of damage of the foetus is not expected if the AGW-value and the BGW-value are observed.
74-98-6	Propane	AGW: 1800 mg/m <sup>3</sup> 1000 ml/m <sup>3</sup> BGW: -	Overflow factor : 4 Duration 15 min, average value; 4 times per shift; interval 1 h Category II – Substances with a resorptive effect
106-97-8	Butane	AGW: 2400 mg/m <sup>3</sup> 1000 ml/m <sup>3</sup> BGW: -	Overflow factor : 4 Duration 15 min, average value; 4 times per shift; interval 1 h Category II – Substances with a resorptive effect

AGW = Occupational exposure limit value      BGW = Biological limit value

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUATION)

#### Personal protective equipment

##### Protective clothing:

Depending on the type of threat, wear thick and sufficiently long apron, boots or suitable chemical resistant protective clothing. Protective clothing should be solvent-resistant. Use flame-retardant antistatic protective clothing.

##### Respiratory protection:

In exceptional cases (e.g. accidental release of the substance, exceeding airborne aerosols limits), a respirator must be worn. Comply with any wearing time limits. Respirator: gas filter A, colour code brown. Details on the requirements for use and maximum use concentrations can be found in the "Standards for the use of respirators" (BGR 190, BGR: Berufsgenossenschaftliche Regel = Standard of the Professional Association). Respirator: self-contained breathing apparatus. Employ with concentrations above the limit of use of filter apparatus, for oxygen content below 17 vol.% or under unclear conditions.

##### Eye protection:

Adequate eye protection must be worn. Use frame glasses with side shields. If liquids could come into contact with the eyes, safety goggles must be worn. If vapours or aerosols occur which can cause damage to eyes, the best way of ensuring eye protection is the use of a full face mask.

##### Hand protection:

If protective gloves are worn, the glove material has to be resistant against the material used.

Inspect the impermeability before using. Clean gloves before taking off and air them well. Follow skin care tips.

Fabric and leather gloves are completely unsuitable.

In case of continuous contact, do not wear gloves made of the following materials for more than 1 hour (penetration time  $\geq$  1 hour):

Butyl rubber - Butyl (0,5 mm)

Following glove materials are unsuitable: :

Natural rubber/natural latex - NR, polychloroprene - CR, nitrile rubber/nitrile latex - NBR, fluoro rubber- FKM, polyvinyl chloride - PVC

The time data are indicative values from measurements at 22 degrees C and continuous contact. Higher temperatures through heated substances, body heat etc. and a weakening of the effective layer thickness due to stretching can lead to a considerable reduction of the penetration time. In case of doubt, ask the manufacturer. With a thicker/thinner layer than approx. 1,5 times, the respective penetration time will double/decrease by fifty per cent. The data apply only to the pure substance. When transferred to mixtures of substances, they must be considered only as guidance.

##### Skin protection:

Skin protection products are not as effective as safety gloves in their protective action. Suitable protective gloves should therefore be favoured as far as possible. If protective gloves can not be worn, apply skin protection products to clean skin before starting work and after each break and rub carefully. Ask the manufacturer for suitable products. Before breaks and after completion of work, it is necessary to wash skin with water and soap. After cleaning, use skin care products containing fat.

##### Hygiene at work:

If there is a risk of contamination, foodstuffs, drinks and tobacco can not be taken into or kept in working areas. Special areas must be available for this purpose. Avoid contact with skin. It is essential to prevent any drying of the substance or of its solutions on the skin. After contact with the substance, it is necessary to wash the skin. Avoid contact with eyes. After contact with the substance, carry out eye rinsing. Do not breathe vapours. Take off all contaminated clothing and make sure they are dry before reusing.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	aerosol	Odour:	characteristic, pleasant
Colour:	whitish	Boiling point:	-76° up to -78 °C
Flash point:	-1 °C	Ignition temperature:	approx. 250 °C
Explosion hazards:	The product is not explosive, but explosive vapour-air mixtures may be formed.		
Explosive limits:	lower: 0,6 vol.%	upper:	not determined
Vapour pressure:	at 20 °C		6,0 bar (pressure of can content)
	at 50 °C		6,0 bar (pressure of can content)
Solubility:	at 20 °C		barely soluble in water

**10. STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable under normal conditions.
<b>Materials to avoid:</b>	None known.
<b>Conditions to avoid:</b>	Avoid heating, naked flames, sources of ignition etc. – danger of explosion.
<b>Hazardous reactions:</b>	Risk of explosion if heated.
<b>Hazardous decomposition products:</b>	None when used according to directions; however, in the event of fire it decomposes to form carbon dioxide and carbon monoxide. Danger of suffocation.

**11. TOXICOLOGICAL INFORMATION**

<b>Health information:</b>	Inhaling the solvent vapours and the propellant vapours can lead to narcotic effects. No toxic effects are known.
<b>Information on single components</b>	
Ethyl acetate	LD50 oral rat: 5620 mg/kg Reference: Yakkyoku. Pharmacy. Vol. 32, Pg. 1241, 1981. LD50 dermal rat / rabbit: > 18000 mg/kg      Species: rabbit Reference: Union Carbide Data Sheet. Vol. 10/4/1968.

The information in Chapter 8 Exposure controls/Personal protection must be adhered to.

**12. ECOLOGICAL INFORMATION**

**Information on single components**

Ethyl acetate	LC50 fish (96 hours)
	Minimum value: 212 mg/l
	Maximum value: 484 mg/l
	Median value: 328 mg/l
	Number of studies: 4

Reference: Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984. Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI :414; Douglas, M.T., D.O. Chanter, I.B. Pell, and G.M. Burney 1986. A Proposal for the Reduction of Animal Numbers Required for the Acute Toxicity to Fish Test (LC50 Determination). *Aquat.Toxicol.* 8(4):243-249



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**15. REGULATORY INFORMATION (CONTINUATION)**

**Particular risks for humans and the environment:**

**R phrases:** R12 Highly flammable.  
R36 Irritating to eyes.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

**S phrases:** S2 Keep out of the reach of children.  
S16 Keep away from sources of ignition - No smoking.  
S23 Do not breathe aerosol.  
S24/25 Avoid contact with skin and eyes.  
S29 Do not empty into drains.  
S51 Use only in well-ventilated areas.

**Occupational health and safety regulations**

Regulations for the prevention of industrial accidents of the employers' liability insurance associations and Technical Rules.  
Youth Employment Protection Law (dangerous work).  
Maternity Protection Act (prohibitions of work).

**VOC-guideline (1999/13/EC)**

VOC content: 95%

**16. OTHER INFORMATION**

The information given above is based on our present level of knowledge and does not constitute an assurance of properties. No claim is made to exhaustiveness. The information should only be considered a general guideline. Existing laws and regulations must be observed by the recipients of our product at their own responsibility. The company cannot be held responsible for damage resulting from the use of the product.