

# MATERIAL SAFETY DATA SHEET

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## *Pro-Clean*

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

<b>Use of the Substance/Preparation</b>	General surface treatment
<b>Chemical characterization</b>	Organic solvent
<b>Supplier</b>	Trend-Chemie AG Birmensdorferstrasse 56 CH-8036 Zürich Tel. 0041 44 463 56 55 Fax. 0041 44 463 55 22
<b>Emergency telephone number</b>	++1 800 535 5053 (24 hrs)
<b>Revision Date</b>	29.03.2005
<b>Number</b>	1

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Hazardous components</b>	Trichloroethylene, (>90 %), [T, R-45-36/38-52/53-67], CAS Nr. 79-01-6, EU Nr. 602-027-00-9, EINECS Nr. 201-167-4
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### 3. HAZARDS IDENTIFICATION

May cause cancer. Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness.

NFPA Ratings (Scale 0-4):  
HEALTH=4 FLAMMABILITY=0 REACTIVITY=0  
SPECIAL=Carcinogenic

HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe):  
HEALTH=4 FLAMMABILITY=0 REACTIVITY=0 PROT.  
EQUIPMENT=B (Safety Glasses, Gloves)

WHMIS:  
Class D, Division 2, Subdivision A: Materials causing other toxic effects, Very toxic material ; Class D, Division 2, Subdivision B: Materials causing other toxic effects, Toxic material

## 4. FIRST AID MEASURES

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapours. Consult a physician after significant exposure.
<b>Skin contact</b>	Wash with water and soap as a precaution. Consult a physician for severe cases.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	Immediately give plenty of water (if possible charcoal slurry). Consult a physician for severe cases.

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## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Water. Carbon dioxide (CO <sub>2</sub> ).
<b>Specific hazards</b>	During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.
<b>Special protective equipment for firefighters</b>	Standard procedure for chemical fires. In the event of fire, wear self contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. Advise water authority if spillage has entered water course or drainage system.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal.

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## 7. HANDLING AND STORAGE

<b>Handling</b>	As a rule, at least 10 air changes per hour are recommended at the workplace. In this case wear Neoprene gloves when handling parts. Take precautionary measures against static discharges.
<b>Storage</b>	Keep containers tightly closed in a cool, well-ventilated place.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering measures to reduce exposure</b>	Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes and clothing.
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## Personal protection equipment

<b>Respiratory protection</b>	In case of good ventilation no personal respiratory protective equipment required.
<b>Hand protection</b>	Break through time: (?).
<b>Eye protection</b>	Safety glasses.
<b>Skin and body protection</b>	Long sleeved clothing.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Sweet.
<b>Physical and chemical properties</b>	pH n.a.. Boiling point/range 32 °F (>85 °C). Flash point n.a. Water solubility: insoluble. Fat solubility: completely soluble. Relative density 1.46 g/cm <sup>3</sup> . Log POW = 2.29.

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## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Burning produces obnoxious and toxic fumes.

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## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	<u>Methylenechloride:</u> LD50/oral/rat = 1600 mg/kg. LC50/inhalation/4h/rat = 52000 mg/kg.  CHRONIC EXPOSURE - CARCINOGEN Result: This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Species: Rat Route of Application: Inhalation Dose: 3500 PPM Exposure Time: 6H/2Y Frequency: I Result: Tumorigenic: Carcinogenic by RTECS criteria. Endocrine: Tumors. Species: Mouse Route of Application: Inhalation Dose: 2000 PPM Exposure Time: 5H/2Y Frequency: C Result: Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. IARC CARCINOGEN LIST Rating: Group 2B Group 2B Rating: Group 2B  NTP CARCINOGEN LIST Rating: Clear evidence. Species: Mouse/rat Route: Inhalation
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ACGIH CARCINOGEN LIST Rating: A3

IRIS/EPA CARCINOGEN LIST Rating: Group B2

<b>Local effects</b>	Irritating to eyes and skin. No data is available on the product itself.
<b>Long term toxicity</b>	Prolonged skin contact may result in skin irritation and skin cancer.
<b>Human experience</b>	Cancer.

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## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Waste water from subsequent processing should be given appropriate treatment in line with local regulations. Dangerous to aquatic and soil organisms and accumulates in plants and animals.
<b>Mobility</b>	No data is available on the product itself.

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## 13. DISPOSAL CONSIDERATIONS

<b>Waste from residues / unused products</b>	Can be incinerated, when in compliance with local regulations.
<b>Contaminated packaging</b>	Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

<b>ADR/RID</b>	Proper shipping name: Trichloroethylene. UN No 1710. Kemler code 60. Packing group 6.1. Classification code III. TREM-CARD 6.1.
<b>IMO</b>	Proper shipping name: Trichloroethylene. UN No 1710. Class 6.1. Packing group III. IMO-Labels 6.1. EmS F-A, S-A.
<b>ICAO</b>	Proper shipping name: Trichloroethylene. UN No 1710. Class 6.1. Packing group III. ICAO-Labels 6.1.

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## 15. REGULATORY INFORMATION

### Regulatory Information

According to (National equivalent of EC-Dir. 67/548), as amended, the product does not need to be labelled.

NFPA Ratings (Scale 0-4):HEALTH=4 FLAMMABILITY=0  
REACTIVITY=0 SPECIAL=Carcinogenic

HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate  
3=Serious 4=Severe):HEALTH=4 FLAMMABILITY=0  
REACTIVITY=0 PROT. EQUIPMENT=B (Safety Glasses,  
Gloves)

WHMIS:Class D, Division 2, Subdivision A: Materials  
causing other toxic effects, Very toxic material ; Class D,  
Division 2, Subdivision B: Materials causing other toxic  
effects, Toxic material

#### Methylenechloride:

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

DEMINIMIS: 0.1 %

NOTES: This product is subject to SARA section 313  
reporting  
requirements.

TSCA INVENTORY ITEM: Yes

UNITED STATES - STATE REGULATORY  
INFORMATION

OSHA Remarks: OSHA-regulated carcinogen. See CFR  
title 29 part 1910.1052.

CALIFORNIA PROP - 65

California Prop - 65: This product is or contains  
chemical(s)  
known to the state of California to cause cancer.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in  
accordance with the hazard criteria of the CPR, and the  
MSDS

contains all the information required by the CPR.

DSL: Yes

NDSL: No

### Symbol(s)

T - Toxic.

### R-phrase(s)

R45: May cause cancer.

R36/38: Irritating to eyes and skin.

R52/53: Harmful to aquatic organisms, may cause long-  
term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

### S-phrase(s)

S53: Avoid exposure - obtain special instructions before  
use.

S45: In case of accident or if you feel unwell, seek medical  
advice immediately (show the label where possible).

S61: Avoid release to the environment. Refer to special  
instructions/Safety data sheets.

## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 2

R36/38: Irritating to eyes and skin. R45: May cause cancer. R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R67: Vapours may cause drowsiness and dizziness.

### End use

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. It is not to be considered a warranty or quality specification.