



MSDS 29/07/08, Rev. 1 del 18/01/2012

1. IDENTIFICATION OF THE SUSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name: **ECTOR® V-50**

Article number: ----

Product type and use: **Treatment for glass surfaces**

Supplier:
R. & R. Group Srl
Via Foscari, 8
36016 THIENE (VI)

Emergency phone number
R. & R. Group Srl
Tel.: 0445/366572 – fax: 0445/360004 (office hours)
e-mail: info@rergroupsrl.com
Centre Nat. Emergency Poison - Pavia-tel 0382/24444

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008
Flammable liquids (Category 2)

Classification of the substance or mixture according to Directive 67/548/EEC and Directive 1999/45/EC
Highly flammable

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008



Pictogram:
Signal word: **Danger**
Hazard statement(s): **H225 Highly flammable liquid and vapour.**
Precautionary statement(s): **P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**
Supplemental Hazard Statements: **none**

Labelling according to European Directive 67/548/EEC as amended.



Hazard symbol(s):



R-phrase(s):

R11 Highly flammable.

S-phrase(s):

S 7 Keep container tightly closed.



S16 Keep away from sources of ignition - No smoking.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterisation: Preparation of modified hybrid materials in ethanol solution

Substances dangerous to health, in accordance with Directives 67/548/EEC as amended, or for which exposure limits are recognized that require the preparation of the product safety data sheet in accordance to the provisions of Regulation (EC) 1907/2006.

CAS: 64-17-5 EINECS: 200-578-6 N. Index: 603-002-00-5	Ethanol  F R11	
	 H225	

4. FIRST AID MEASURES

4.1 Description of first aid measures

Contact with skin:

Remove any contaminated clothing.

Wash with plenty of water.

If irritation persists, CONSULT A PHYSICIAN IMMEDIATELY.

Eye contact:

Wash immediately with plenty of running water, keeping eyelids open for at least 10 minutes. If necessary SEEK A MEDICAL EXAMINATION.

Ingestion:

Immediately drink plenty of water. Do NOT induce vomiting. SEEK IMMEDIATELY A MEDICAL EXAMINATION.

Inhalation:

Supply fresh air. Immediately remove the patient from the contaminated area to rest in a well ventilated area. If symptoms persist, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Central nervous system depression, narcosis, Damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

no data available



5. FIRE-FIGHTING MEASURES

The product is highly flammable

5.1 Suitable extinguishing media:

In case of fire, use CO₂, alcohol-resistant foam, chemical powders, water spray depending on the materials involved in fire.

5.2 Unsuitable extinguishing media:

Do not use direct water jets on the burning product; they could cause splattering and spread the fire.

5.3 Special risks:

Combustible. Vapors heavier than air, form explosive mixtures with air at ambient temperature.

5.4 Protective equipment:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

5.5 Additional precautions:

Cool containers with spray water from a safe distance. Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or groundwater.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions:

Avoid the product to drain into the drainage system: risk of explosion!

6.3 Methods for cleaning up:

Ensure adequate ventilation. Remove all sources of ignition. Collect leaking and spilled liquid in sealable containers as far as possible with an electrically protected vacuum cleaner or by wet-brushing. Wash away residues with plenty of water. Dispose contaminated material as waste, according to point 13 of this MSDS.



7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Ensure good ventilation at the workplace. The correct procedures include the maintenance of the product away from heat, sparks and other ignition sources. Do not smoke. Protect against electrostatic charges.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Hygroscopic

7.3. Specific end use

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

For substances contained in the product the following exposure limits have been defined:

Ethanol

MAK (TRGS 900): 1900 mg/m³ - 1000 ml/m³ - 500 ppm

Peak Limit: 4

TLV-STEL: 1000 ppm

8.2 Exposure controls

General protection and hygiene measures:

Protective clothing should be selected specifically for the particular workplace, depending on the concentration and quantity of hazardous substances handled. The resistance of protective clothing to chemicals should be ascertained with the respective suppliers.

Observe the usual precautionary measures for handling chemicals:

- Keep away from food and drink
- Remove contaminated clothing,
- Do not inhale gas / fumes / aerosols,
- Avoid contact with skin,
- Avoid contact with eyes,
- Give adequate ventilation to the premises where the product is stored and / or handled.
- Avoid production and diffusion of mist and aerosols.

Respiratory protection:

Required when vapors/aerosols are generated. Wear adequate mask with filter ABEK

**Hand protection:**

Use protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as EN 166.

Skin protection:

Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. Physical and chemical properties

Appearance:	colorless liquid
Odour:	alcohol-like
pH:	~ 2 (500 g/l – 20°C)
Melting point:	not applicable
Boiling point:	78°C
Flash point:	<21° C
Ignition temperature:	>425°C
Explosive properties:	formation of explosive air/vapor mixtures is possible
Explosion limit:	Inf > 3,5% Vol – Sup 28% Vol
Oxidising properties:	not available
Vapour pressure:	59 hPa (20°C)
Density:	0,8 g/cm ³ (20°C)
Water solubility:	Soluble (20°C)
Lipid solubility	not available
Partition coefficient (n-octanol/water) :	not available
Vapour density:	not available
Dynamic viscosity:	~2 mPas
Kinematic Viscosity:	not determined

10. STABILITY AND REACTIVITY**10.1 Reactivity**

The mixtures of air / vapours are combustible when heated at high temperature. Heating can release flammable vapours.



10.2 Chemical stability

Stable under normal conditions of use

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6. Hazardous decomposition products

When heated or in case of fire CO and CO₂ can be released.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (ethanol)

Acute toxicity

LD50 Oral - rat - 7.060 mg/kg

Remarks: Lungs, Thorax, or Respiration:Other changes.

LC50 Inhalation - rat - 10 h - 20000 ppm

Skin corrosion/irritation

Skin - rabbit - Irritating to skin. - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation - 24 h - Draize Test

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Carcinogenicity - mouse - Oral

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Reproductive toxicity - Human - female - Oral

Effects on Newborn: Drug dependence.

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

no data available

Aspiration hazard

no data available

Potential health effects:

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1 Toxicity

Biological effects: in high concentration : adverse effects on aquatic organism; when used properly, it does not interfere with operation of a sewage treatment plant.

Fish toxicity: *Lidus* LC₅₀: 8140 mg/l /48 h.

Daphnia : *Daphnia Magna* EC₅₀: 936814221 mg/l / 48h

Algae toxicity: *Sc. Quadricauda* IC₅: 5000 mg/l/7 d;

Bacterial toxicity: *Ps. Putida* EC₅: 6500 mg/l/16 h; Protozoa: *E.sulcatum* EC₅ :65 mg/l /72 h.

Other ecological information:

BOD₅: 0.93-1.67 g/g

COD: 1.99 g/g

TOD: 2.10 g/g

BOD 74% da TOD/5 d; COD 90% da TOD.

12.2 Persistence and degradability

Abiotica degradation: Rapid degradation (air)

Biological degradation: Biodegradation : 94% modified OECD screening test; rapidly degradable

12.3 Bioaccumulative potential

Distribution : log p (o/w): 0.32 (ethanol); Bioaccumulate is not expected (log P(o/w)<1).

12.4 Mobility in soil:

No relevant data available



12.5 Results of PBT assessment

Not available

12.6. Other adverse effects

No further relevant data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Chemical residues are generally classified as special waste, therefore their disposal is regulated by law. For more information on disposal, contact the competent authorities or approved waste disposal companies.

Contaminated packaging

Handle contaminated containers and treat the same way as the substance itself.

Handling of containers after emptying and cleaning up on:

You should not remove any labels and hazard symbols.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1170

IMDG: 1170

IATA: 1170

14.2 UN proper shipping name

ADR/RID: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION

IMDG: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION

IATA: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION

14.3 Transport hazard class(es)

ADR/RID: 3 (F1)

IMDG: 3.2

IATA: 3



Hazard Identification N°.: ADR/RID: 30

ADR/RID: 30

IMDG: 30

IATA: 30

EMS N°.: ADR/RID: 30

ADR/RID: 30

IMDG: 3-06

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no



14.6 Special precautions for user

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 1999/45/EC, as amended;
- Directive 67/548/EEC and subsequent amendments and adjustments (technical adjustment XXIX);
- Regulation (EC) 1907/2006 of the European Parliament (REACH).
- Regulation (EC) 1278/2008

15.2 Chemical Safety Assessment

no data available

16. FURTHER INFORMATION

Main literature sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand
Reinold

ACGIH - Treshold Limit Values - 2011 edition

Note to users

The product should not be used for purposes other than those indicated and without having obtained written instructions. We accept no responsibility for any misuse.

It is always user's responsibility to comply with hygiene, safety and environmental protection provided by current laws.

The information contained herein is meant as a description of the characteristics of the product for safety, not be considered a guarantee of the properties of the product itself.

This sheet supersedes all previous editions