



**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product identifier:** GRAFFITI REMOVER - Special graffiti solvent  
24-60  
1,3-dioxolane
- CAS: 646-06-0  
EC: 211-463-5  
Index: 605-017-00-2  
REACH: 01-2119490744-29-XXXX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Surface treatment. For professional use only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:** EVOCHEM S.A.  
Tzaverdella Place  
133 41 PHILI , ATTICA - GREECE  
Phone.: 0030 210 5590460 , 0030 210 5590155 -  
Fax: 0030 210 6254737 , 0030 210 5590244  
info@evochem.gr; vmergoupis@evochem.gr;  
sales@evochem.gr  
www.evochem.gr
- 1.4 Emergency telephone number:** National Poisoning Center 2107793777

**SECTION 2: HAZARDS IDENTIFICATION**

- 2.1 Classification of the substance or mixture:**  
**Directive 67/548/EC and Directive 1999/45/EC:**  
This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).  
F: R11 - Highly flammable  
Xi: R38 - Irritating to skin  
Xn: R20/21 - Harmful by inhalation and in contact with skin
- CLP Regulation (EC) n° 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.  
Flam. Liq. 2: Flammable liquids, Category 2  
Skin Irrit. 2: Skin irritation, Category 2
- 2.2 Label elements:**  
**Directive 67/548/EC and Directive 1999/45/EC:**  
In accordance with the legislation, the elements on the label are as follows:
-   
Highly flammable
-   
Harmful
- R Phrases:**  
R11: Highly flammable  
R20/21: Harmful by inhalation and in contact with skin  
R38: Irritating to skin
- S Phrases:**  
S16: Keep away from sources of ignition - No smoking  
S24: Avoid contact with skin  
S36/37: Wear suitable protective clothing and gloves  
S43: In case of fire, use polyvalent powder ABC  
S51: Use only in well-ventilated areas  
S9: Keep container in a well-ventilated place
- Supplementary information:**  
Non-applicable

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 2: HAZARDS IDENTIFICATION (continue)**

**Substances that contribute to the classification:**

Xylene (mixture of isomers) (CAS: 1330-20-7)

**CLP Regulation (EC) n° 1272/2008:**

**Danger**



**Hazard statements:**

Flam. Liq. 2: H225 - Highly flammable liquid and vapour

Skin Irrit. 2: H315 - Causes skin irritation

**Precautionary statements:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233: Keep container tightly closed

P280: Wear protective gloves/protective clothing/eye protection/face protection

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P321: Specific treatment is urgently needed (go to see a doctor with the Safety data sheet for this product)

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.

P403+P235: Store in a well-ventilated place. Keep cool

P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

**Supplementary information:**

Non-applicable

**2.3 Other hazards:**



Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical description:** Mixture composed of polymers and resins in solvent

**Components:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

| Identification  | Chemical name/Classification  | Concentration  |
|---|---|--|
| CAS: 646-06-0<br>EC: 211-463-5<br>Index: 605-017-00-2<br>REACH:01-2119490744-29-XXXX  | <b>1,3-dioxolane</b> ATP CLP00  | 75 - <100 %<br> |
|   | Directive 67/548/EC F: R11  |  |
|   | Regulation 1272/2008 Flam. Liq. 2: H225 - Danger  |  |
| CAS: 1330-20-7<br>EC: 215-535-7<br>Index: 601-022-00-9<br>REACH:01-2119488216-32-XXXX | <b>Xylene (mixture of isomers)</b> ATP CLP00  | 19 - <24 %<br>  |
|   | Directive 67/548/EC Xi: R38; Xn: R20/21; R10  |  |
|   | Regulation 1272/2008 Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning |  |

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.

**By inhalation:**

This product is not classified as dangerous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 4: FIRST AID MEASURES (continue)**

**By eye contact:**

Rinse eyes thoroughly with luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.

**By consumption:**

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Non-applicable

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media:**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO<sub>2</sub>). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertizing agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

**6.2 Environmental precautions:**

This product is not classified as dangerous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent**  
**24-60**

**SECTION 7: HANDLING AND STORAGE (continue)**

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

**B.- Technical recommendations for the prevention of fires and explosions**

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

**C.- Technical recommendations to prevent ergonomic and toxicological risks**

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

**D.- Technical recommendations to prevent environmental risks**

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

**A.- Technical measures for storage**

Minimum Temp.: 5 °C  
Maximum Temp.: 35 °C  
Maximum time: 12 Months

**B.- General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the work environment

| Identification   | Environmental limits  |                       |      |
|--|-----------------------|-----------------------|------|
|  | IOELV (8h)            | IOELV (STEL)          | Year |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | 50 ppm                | 100 ppm               | 2014 |
|  | 221 mg/m <sup>3</sup> | 442 mg/m <sup>3</sup> |      |

**DNEL (Workers):**

| Identification   |            | Short exposure        |                       | Long exposure        |                |
|--|------------|-----------------------|-----------------------|----------------------|----------------|
|  |            | Systemic              | Local                 | Systemic             | Local          |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5                | Oral       | Non-applicable        | Non-applicable        | Non-applicable       | Non-applicable |
|  | Dermal     | Non-applicable        | Non-applicable        | 4,1 mg/kg            | Non-applicable |
|  | Inhalation | Non-applicable        | Non-applicable        | 19 mg/m <sup>3</sup> | Non-applicable |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | Oral       | Non-applicable        | Non-applicable        | Non-applicable       | Non-applicable |
|  | Dermal     | Non-applicable        | Non-applicable        | 180 mg/kg            | Non-applicable |
|  | Inhalation | 289 mg/m <sup>3</sup> | 289 mg/m <sup>3</sup> | 77 mg/m <sup>3</sup> | Non-applicable |

**DNEL (Population):**

| Identification                                  |            | Short exposure |                | Long exposure         |                |
|---|------------|----------------|----------------|-----------------------|----------------|
|   |            | Systemic       | Local          | Systemic              | Local          |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5 | Oral       | Non-applicable | Non-applicable | 75 mg/kg              | Non-applicable |
|   | Dermal     | Non-applicable | Non-applicable | 0,8 mg/kg             | Non-applicable |
|   | Inhalation | Non-applicable | Non-applicable | 5,7 mg/m <sup>3</sup> | Non-applicable |

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent**  
**24-60**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)**

| Identification   |            | Short exposure |                | Long exposure          |                |
|--|------------|----------------|----------------|------------------------|----------------|
|  |            | Systemic       | Local          | Systemic               | Local          |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | Oral       | Non-applicable | Non-applicable | 1,6 mg/kg              | Non-applicable |
|  | Dermal     | Non-applicable | Non-applicable | 108 mg/kg              | Non-applicable |
|  | Inhalation | Non-applicable | Non-applicable | 14,8 mg/m <sup>3</sup> | Non-applicable |

**PNEC:**

| Identification   |              |                |                         |             |
|--|--------------|----------------|-------------------------|-------------|
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5                | STP          | 1 mg/L         | Fresh water             | 19,7 mg/L   |
|  | Soil         | 2,62 mg/kg     | Marine water            | 1,97 mg/L   |
|  | Intermittent | 0,95 mg/L      | Sediment (Fresh water)  | 77,7 mg/kg  |
|  | Oral         | Non-applicable | Sediment (Marine water) | 7,77 mg/kg  |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | STP          | 6,58 mg/L      | Fresh water             | 0,327 mg/L  |
|  | Soil         | 2,31 mg/kg     | Marine water            | 0,327 mg/L  |
|  | Intermittent | 0,327 mg/L     | Sediment (Fresh water)  | 12,46 mg/kg |
|  | Oral         | Non-applicable | Sediment (Marine water) | 12,46 mg/kg |

**8.2 Exposure controls:**

A.- General security and hygiene measures in the work place

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment they should have the "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

| Pictogram                   | PPE                       | Labelling      | CEN Standard        | Remarks  |
|-----------------------------|---------------------------|----------------|---------------------|--|
| Compulsory use of face mask | Filter mask for particles | <b>CAT III</b> | EN 149:2001+A1:2009 | Replace when an increase in resistance to breathing is observed. |

C.- Specific protection for the hands

| Pictogram                 | PPE                        | Labelling    | CEN Standard  | Remarks  |
|---------------------------|----------------------------|--------------|---|--|
| Mandatory hand protection | Chemical protective gloves | <b>CAT I</b> | EN 374-1:2003<br>EN 374-3:2003/AC:2006<br>EN 420:2003+A1:2009 | Replace the gloves at any sign of deterioration. |

D.- Ocular and facial protection

| Pictogram                 | PPE                                     | Labelling     | CEN Standard  | Remarks   |
|---------------------------|---|---------------|---|---|
| Mandatory face protection | Panoramic glasses against liquid splash | <b>CAT II</b> | EN 166:2001<br>EN 172:1994/A1:2000<br>EN 172:1994/A2:2001<br>EN ISO 4007:2012 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |



E.- Bodily protection

| Pictogram                          | PPE  | Labelling      | CEN Standard   | Remarks                            |
|------------------------------------|--|----------------|--|------------------------------------|
| Mandatory complete body protection | Antistatic and fireproof protective clothing | <b>CAT III</b> | EN 1149-1:2006<br>EN 1149-2:1997<br>EN 1149-3:2004<br>EN 168:2001<br>EN ISO 14116:2008/AC:2009<br>EN 1149-5:2008 | Limited protection against flames. |



- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)**

| Pictogram  | PPE   | Labelling   | CEN Standard  | Remarks                                     |
|--|---|---|---|---|
| <br>Mandatory foot protection | Safety footwear with antistatic and heat resistant properties |  | EN 13287:2008<br>EN ISO 20345:2011<br>EN ISO 20344:2011 | Replace boots at any sign of deterioration. |

F.- Additional emergency measures

| Emergency measure   | Standards                      | Emergency measure  | Standards                     |
|---|--------------------------------|--|-------------------------------|
| <br>Emergency shower | ANSI Z358-1<br>ISO 3864-1:2002 | <br>Eyewash stations | DIN 12 899<br>ISO 3864-1:2002 |

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**Volatil organic compounds:**

With regard to Directive 1999/13/EC, this product has the following characteristics:

|                           |                                   |
|---------------------------|-----------------------------------|
| V.O.C. (Supply):          | 100 % weight                      |
| V.O.C. density at 20 °C:  | 1015 kg/m <sup>3</sup> (1015 g/L) |
| Average carbon number:    | 4                                 |
| Average molecular weight: | 80,52 g/mol                       |

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

|                          |                                     |
|--------------------------|-------------------------------------|
| Physical state at 20 °C: | Liquid                              |
| Appearance:              | Transparent                         |
| Color:                   | <input type="checkbox"/> Colourless |
| Odor:                    | Characteristic                      |

**Volatility:**

|  |                   |
|--|-------------------|
| Boiling point at atmospheric pressure: | 84 °C             |
| Vapour pressure at 20 °C:              | 8640 Pa           |
| Vapour pressure at 50 °C:              | 33019 Pa (33 kPa) |
| Evaporation rate at 20 °C:             | Non-applicable *  |

**Product description:**

|  |                              |
|--|------------------------------|
| Density at 20 °C:                            | 1015 kg/m <sup>3</sup>       |
| Relative density at 20 °C:                   | 1,015                        |
| Dynamic viscosity at 20 °C:                  | 0,91 cP                      |
| Kinematic viscosity at 20 °C:                | 0,9 cSt                      |
| Kinematic viscosity at 40 °C:                | Non-applicable *             |
| Concentration:                               | 1020 g/L (active ingredient) |
| pH:  | Non-applicable *             |
| Vapour density at 20 °C:                     | Non-applicable *             |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable *             |
| Solubility in water at 20 °C:                | Non-applicable *             |
| Solubility property:                         | Non-applicable *             |

\*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continue)**

Decomposition temperature: Non-applicable \*

Melting point/freezing point: Non-applicable \*

**Flammability:**

Flash Point: 1 °C

Autoignition temperature: 274 °C

Lower flammability limit: Not available

Upper flammability limit: Not available

**9.2 Other information:**

Surface tension at 20 °C: Non-applicable \*

Refraction index: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight            | Humidity       |
|--------------------|------------------|-------------------------|---------------------|----------------|
| Not applicable     | Not applicable   | Risk of combustion      | Avoid direct impact | Not applicable |

**10.5 Incompatible materials:**

| Acids          | Water          | Combustive materials | Combustible materials | Others         |
|----------------|----------------|----------------------|-----------------------|----------------|
| Not applicable | Not applicable | Avoid direct impact  | Avoid direct impact   | Not applicable |

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.

B- Inhalation:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes:

Produces skin inflammation.

- CONTINUED ON NEXT PAGE -



**GRAFFITI REMOVER - Special graffiti solvent**  
**24-60**

**SECTION 11: TOXICOLOGICAL INFORMATION (continue)**

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

E- Sensitizing effects:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitizing effects. For more information see section 3.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

| Identification   | Acute toxicity  |                  | Genus |
|--|-----------------|------------------|-------|
|  | LD50 oral       | LD50 dermal      |       |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5                | LD50 oral       | 3000 mg/kg       | Rat   |
|  | LD50 dermal     | 15000 mg/kg      | Rat   |
|  | LC50 inhalation | 20650 mg/L (4 h) | Rat   |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | LD50 oral       | 2100 mg/kg       | Rat   |
|  | LD50 dermal     | 1100 mg/kg       | Rat   |
|  | LC50 inhalation | 11 mg/L (4 h)    | Rat   |

**SECTION 12: ECOLOGICAL INFORMATION**

The experimental information related to the ecotoxicological properties of the product itself is not available

**12.1 Toxicity:**

| Identification   | Acute toxicity |                   | Specie                | Genus      |
|--|----------------|-------------------|-----------------------|------------|
|  | LC50           | LD50              |                       |            |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5                | LC50           | 12000 mg/L (96 h) | Cypronodon variegatus | Fish       |
|  | EC50           | 6500 mg/L (48 h)  | Daphnia magna         | Crustacean |
|  | EC50           | Non-applicable    |                       |            |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | LC50           | 13,5 mg/L (96 h)  | Oncorhynchus mykiss   | Fish       |
|  | EC50           | 0,6 mg/L (96 h)   | Gammarus lacustris    | Crustacean |
|  | EC50           | 10 mg/L (72 h)    | Skeletonema costatum  | Alga       |

**12.2 Persistence and degradability:**

Not available

**12.3 Bioaccumulative potential:**

| Identification   | Bioaccumulation potential |         |
|--|---------------------------|---------|
|  | BCF                       | Pow Log |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5                | BCF                       | 3       |
|  | Pow Log                   | -0,37   |
|  | Potential                 | Low     |
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | BCF                       | 9       |
|  | Pow Log                   | 2,77    |
|  | Potential                 | Low     |

**12.4 Mobility in soil:**

| Identification                                  | Absorption/desorption |                | Volatility |                                 |
|---|-----------------------|----------------|------------|---------------------------------|
|   | Koc                   | Conclusion     | Henry      | Dry soil                        |
| 1,3-dioxolane<br>CAS: 646-06-0<br>EC: 211-463-5 | Koc                   | 15             | Henry      | 2,482E+0 Pa·m <sup>3</sup> /mol |
|   | Conclusion            | Very High      | Dry soil   | Yes                             |
|   | Surface tension       | Non-applicable | Moist soil | Yes                             |

- CONTINUED ON NEXT PAGE -



**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 12: ECOLOGICAL INFORMATION (continue)**

| Identification   | Absorption/desorption |                | Volatility |                                 |
|--|-----------------------|----------------|------------|---------------------------------|
| Xylene (mixture of isomers)<br>CAS: 1330-20-7<br>EC: 215-535-7 | Koc                   | 202            | Henry      | 5,249E+2 Pa·m <sup>3</sup> /mol |
|  | Conclusion            | Moderate       | Dry soil   | Yes                             |
|  | Surface tension       | Non-applicable | Moist soil | Yes                             |

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods:**

| Code | Description   | Waste class (Directive 2008/98/EC) |
|------|---|------------------------------------|
|      | It is not possible to assign a specific code, as it depends on the intended use by the user | Dangerous                          |

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to ADR 2013 and RID 2013:



- 14.1 UN number:** UN1993  
**14.2 UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (1,3-dioxolane)  
**14.3 Transport hazard class(es):** 3  
 Labels: 3  
**14.4 Packing group:** II  
**14.5 Dangerous for the environment:** No  
**14.6 Special precautions for user**  
 Special regulations: 274, 601, 640D  
 Tunnel restriction code: D/E  
 Physico-Chemical properties: see section 9  
 Limited quantities: 1 L  
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 36-12:

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 14: TRANSPORT INFORMATION (continue)**



|   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1993                                   |
| <b>14.2 UN proper shipping name:</b>  | FLAMMABLE LIQUID, N.O.S. (1,3-dioxolane) |
| <b>14.3 Transport hazard class(es):</b>   | 3  |
| Labels:   | 3  |
| <b>14.4 Packing group:</b>  | II                                       |
| <b>14.5 Dangerous for the environment:</b>  | No                                       |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274, 944                                 |
| EmS Codes:  | F-E, S-E                                 |
| Physico-Chemical properties:  | see section 9                            |
| Limited quantities:   | 1 L                                      |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b> | Non-applicable                           |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2014:



|   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1993                                   |
| <b>14.2 UN proper shipping name:</b>  | FLAMMABLE LIQUID, N.O.S. (1,3-dioxolane) |
| <b>14.3 Transport hazard class(es):</b>   | 3  |
| Labels:   | 3  |
| <b>14.4 Packing group:</b>  | II                                       |
| <b>14.5 Dangerous for the environment:</b>  | No                                       |
| <b>14.6 Special precautions for user</b>  |  |
| Physico-Chemical properties:  | see section 9                            |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b> | Non-applicable                           |

**SECTION 15: REGULATORY INFORMATION**

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

Regulation (EC) 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH):**

Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009, 2009 No. 716

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), SI 2009 No 1348

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011, 2011 No. 1885

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits

The Waste Regulations 2011, 2011 No. 988

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

- CONTINUED ON NEXT PAGE -

**GRAFFITI REMOVER - Special graffiti solvent  
24-60**

**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 453/2010)

**Modifications related to the previous security card which concerns the ways of managing risks. :**

Non-applicable

**Text of R-phrases considered in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**Directive 67/548/EC and Directive 1999/45/EC:**

- R10: Flammable
- R11: Highly flammable
- R20/21: Harmful by inhalation and in contact with skin
- R38: Irritating to skin

**CLP Regulation (EC) n° 1272/2008:**

- Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
- Flam. Liq. 2: H225 - Highly flammable liquid and vapour
- Flam. Liq. 3: H226 - Flammable liquid and vapour
- Skin Irrit. 2: H315 - Causes skin irritation

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- <http://esis.jrc.ec.europa.eu>
- <http://echa.europa.eu>
- <http://eur-lex.europa.eu>

**Abbreviations and acronyms:**

- ADR: European agreement concerning the international carriage of dangerous goods by road
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this security data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -