



Manufactured by: HARPO spa – **Rialto** division 34123 Trieste (Italy)  
Tech. Sheet N°: 24/P/RI  
Product name: **RIALTO GRAFFITI BIO REMOVER**  
Revision nr. 5dated: 01.10.2008

**01. IDENTIFICATION OF THE PREPARATION AND THE COMPANY**

**1.1 Identification of the substance or preparation:**

**Product name:** Rialto Graffiti Bio Remover.

**1.2 Use of the substance/preparation:**

**Intended use:** Rialto Graffiti Bio - Remover is an organic graffiti remover.

**Chemical name and synonym:** Graffiti remover, terpene based.

**1.3 Company Identification:**

**Name:** HARPO spa.

**Full address:** Via Torino, 34

34123 - Trieste, Italy,

tel. +39 040 3186611, fax +39 0403186666

**District and Country:**

**E-mail address of the competent person responsible for the Safety Data Sheet:** rialto@rialto-colors.com (rif. Dr. Renzi – technical manager)

**Product distribution by:** Harpo spa

**1.4 Telephone number for urgent inquiries:** + 39 040 2397211 (timetable: 8.00 – 16.30)

**02. DANGER IDENTIFICATION**

**2.1 Substance/Preparation Classification.**

This preparation is dangerous under 67/548/EEC and 1999/45/EC regulations and subsequent amendments (XXX ATP). This compound requires a safety data sheet according to the regulation 1907/2006 and the directive 2006/8/EC and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

**Danger Symbol:** Xn

**Phrases R:**

22 - 38 - 40 - 41

**2.2 Danger identification.**

HARMFUL IF SWALLOWED

IRRITATING TO SKIN.

POSSIBLE RISK OF IRREVERSIBLE EFFECTS.

RISK OF SERIOUS DAMAGE TO EYES.

**03. COMPOSITION/INFORMATION ON INGREDIENTS**

Name	Concentr.(C)	Classification
BUTYROLACTONE N°Cas 96-48-0	15,00 - 20,00 %	T R23 Xn R22 Xn R40 Xi R41
N-METHYL-2- PYRROLIDINONE N°Cas 872-50-4 N°CE 212-828-1 N°Index 606-021-00-7	5,00 - 10,00 %	Xi R36/38

The complete text of -R- phrases is specified in section 16.

**04. FIRST AID MEASURES**

**EYES:** Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

Manufactured by: HARPO spa – **Rialto** division 34123 Trieste (Italy)  
Tech. Sheet N°: 24/P/RI  
Product name: **RIALTO GRAFFITI BIO REMOVER**  
Revision nr. 5dated: 01.10.2008

**SKIN:** Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists seek medical attention. Wash contaminated clothing before using them.

**INHALATION:** Remove to fresh air. If breathing is irregular seek medical advice.

**INGESTION:** Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.



In all cases of doubt or if symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person.

#### 05. **FIRE FIGHTING MEASURES**

Closed containers exposed to the heat of a fire may lead to pressure rise and explode. For information on environmental and health risks, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet. Extinguishing measures: CO<sub>2</sub>, foam, AFFF, chemical powder for flammable liquids. Water may not be effective to extinguish the fire, nevertheless it should be used to cool the containers exposed to flames and prevent fires and explosions. For leakage and spillage that have not caught fire, nebulized water may be used to disperse the flammable vapours and protect the people involved in stopping the leakage. Equipment: wear equipment complete with helmet and face shield and protection of the neck, selfbreathing apparatus at pressure or demand, insulative jacket and trousers, with bands around the arms, legs and waist.

#### 06. **ACCIDENTAL RELEASE MEASURES**

Exclude sources of ignition and ventilate the area. Cover with inert absorbent material. Collect spillages by means of sparkproof equipment. Use water only to remove residuals, so as not to run the risk of enter the sewer. Do not let the product dry. Contaminated clothes must be left to soak in water before washing. In order to choose safety measures and protection equipment, please see the other sections of this sheet. Spillage in waters: remove the liquid from the surface with flameproof pumps or manual pumps or suitable absorbent material. Resort to sinking and/or dispersion of the product with suitable substances in open waters, if permitted by the law.

#### 07. **HANDLING AND STORAGE**

Avoid the accumulation of electrostatic charges. Store the containers sealed and in a wellventilated place. Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation. Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off with the risk of flashback. Keep far away from sources of heat, sparks and naked flames. Do not smoke, use matches or lighters. Kept the containers earthed while decanting and wear antistatic boots. Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

#### 08. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

##### **8.1 Exposure limit values:**

N-METHYL-2-PIRROLYDONE  
- TLV TWA

80 mg/m<sup>3</sup> MAC

The data refer to the substances and not to the mixture.

##### **8.2 Exposure controls:**

In order to minimize exposure as far as possible, it is strongly recommended to use adequate individual protective measures such as: masks suitable for the product, goggles, gloves and overalls.

Manufactured by: HARPO spa – **Rialto** division 34123 Trieste (Italy)  
Tech. Sheet N°: 24/P/RI  
Product name: **RIALTO GRAFFITI BIO REMOVER**  
Revision nr. 5dated: 01.10.2008



Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals and at the end of the work shift.

## 09. PHYSICAL AND CHEMICAL PROPERTIES

Colour	Lightly
Odour	Liquid
Solubility in solvents	Miscible
Solubility in water	Partially miscible
Volatile substances % by volume (solvents)	N.A.
Viscosity	c.a. 5 mPas
Vapour density	N.D.
Evaporation speed	< 1
Comburent properties	N.D.
Partition coefficient: n-octanol/water	N.D.
pH	At 20°C ca. 4
Boiling point	ca. 202°C
Flash point	ca. 40 °C
Ignition temperature	N.D.
Explosive properties	N.D.
Specific gravity	c.a. 1,002 ± 0,005 Kg/l

## 10. STABILITY AND REACTIVITY

The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbonoxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air. N-methyl-2-pyrrolidone is stable up to 315 °C in inert atmosphere. In the presence of air, it slowly oxidizes to form hydroperoxides. Due to thermal decomposition, it yields toxic gases of nitrogen and carbon oxides. It is completely miscible with water giving a neutral or slightly basic reaction. It doesn't attack common materials, but melts different types of plastic materials.

NMP: oral LD50 (mg/kg) 7000 (RAT); dermal LD50 (mg/kg) 7000 /RAT); inhalation LC50 (rat) 5,1 mg/l/4h.

## 11. TOXICOLOGICAL INFORMATION

Acute effects: contact with skin may cause irritation, erythema, edema, dryness and chapped skin. Contact with eyes may cause slight irritation. Vapour inhalation may slightly irritate the upper respiratory tract. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness. This product must be handled carefully because of its possible carcinogenic effects. Anyway, currently available data do not allow us to comprehensively assess this product. This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration. N-methyl-2-pyrrolidone: no acute or chronic cases of intoxication or sensitization have been reported. On healthy volunteers, repeated skin applications caused modest and transient erythema. The substance enhances the absorption of several substances through the skin. A limit of exposure of 400 mg/cu.m is recommended (Fiche toxicologique, 1987). Experiments conducted on mice and rats by the oral and inhalation route revealed no teratogenic effects, at non embryotoxic doses. It is not mutagenic with Ames test.

## 12. ECOLOGICAL INFORMATION

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

Manufactured by: HARPO spa – **Rialto** division 34123 Trieste (Italy)  
Tech. Sheet N°: 24/P/RI  
Product name: **RIALTO GRAFFITI BIO REMOVER**  
Revision nr. 5dated: 01.10.2008

**13. DISPOSAL CONSIDERATIONS**

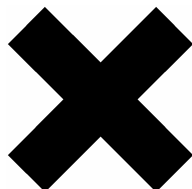
Consider the possibility of burning the product in a suitable incinerator. Acid or basic products must always be neutralized before undergoing any treatment, including biological treatment whenever feasible. If the waste is solid, it can be disposed of in a landfill.

**14. TRANSPORT INFORMATIONS**

This substance is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**15. REGULATORY INFORMATION**

Health hazard symbol



**Xn**

**HARMFUL**

R22	HARMFUL IF SWALLOWED.
R38	IRRITATING TO SKIN.
R40	LIMITED EVIDENCE OF CARCINOGENIC EFFECT.
R41	RISK OF SERIOUS DAMAGE TO EYES.
S13	KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
S25	AVOID CONTACT WITH EYES.
S39	WEAR EYES/FACE PROTECTION.
S41	IN CASE OF FIRE AND/OR EXPLOSION DO NOT BREATHE FUMES.
S63	IN CASE OF ACCIDENT BY INHALATION: REMOVE CASUALTY TO FRESH AIR AND KEEP AT REST.

Contains:  
BUTYROLACTONE, NMP.

Danger labeling under regulations 67/548/CEE and 1999/45/CE and following amendments and adjustments (XXX ATP).

DIRECTIVE 2004/42/EC: this product is not included.

**16. FURTHER INFORMATIONS**

Text of -R- phrases quoted in section 3 of the sheet.

R22	HARMFUL IF SWALLOWED.
R23	TOXIC BY INHALATION.
R36/38	IRRITATING TO EYES AND SKIN.
R40	LIMITED EVIDENCE OF CARCINOGENIC EFFECT.
R41	RISK OF SERIOUS DAMAGE TO EYES.

GENERAL BIBLIOGRAPHY

1. Directive 2006/8/CE

**MATERIAL SAFETY DATA SHEET -** according to european directive 2006/8/EC  
and Regulation n. 1907/2006

Manufactured by: HARPO spa – **Rialto** division 34123 Trieste (Italy)  
Tech. Sheet N°: 24/P/RI  
Product name: **RIALTO GRAFFITI BIO REMOVER**  
Revision nr. 5dated: 01.10.2008



2. Regulation 1999/45/CE and following amendments (technical adjustment XXX);
3. Regulation 67/548/CEE and following amendments and adjustments (technical adjustment XXVIII);
4. Regulation 91/155/CEE and following amendments;
5. Regulation (EC) 1907/2006 and subsequent amendments.
6. The Merck Index. - 10th Edition;
7. Handling Chemical Safety;
8. Niosh - Registry of Toxic Effects of Chemical Substances;
9. INRS - Fiche Toxicologique (toxicological sheet);
10. Patty - Industrial Hygiene and Toxicology;
11. N.I. Sax-Dangerous properties of Industrial Materials-7, 1989 Edition;

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Changes to previous review  
The following sections were modified:  
01/ 02 / 03 / 04 / 08 / 15 / 16