

Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Product name **RAFFAELLO MADREPERLATO**

1.2 Use of the substance / preparation

Intended use **Water based, decorative coating.**

1.3 Company identification

Name **OIKOS SRL**
Full address **Via Cherubini, 2**
District and Country **47043 GATTEO A MARE FC**
ITALIA
Tel. **0039-0547-681412**
Fax **0039-0547-681430**

e-mail address of the competent person responsible for the Safety Data Sheet **labtech@oikos-paint.com**

1.4 Emergency telephone

For urgent inquiries refer to **0039-0547-681412 Laboratorio R&S. OIKOS srl**
0039-0557-947819 Centro Antiveneni (Anti-poison Centre)
OSPEDALE Careggi, Firenze, Italia

2. Hazards Identification

2.1 Substance/Preparation Classification

This product is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Therefore, this product requires a safety data sheet according to the Regulation (EC) 1907/2006 and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Danger Symbols: Xi
R phrases: 41

2.2 Danger Identification

RISK OF SERIOUS DAMAGE TO EYES.

3. Composition / Information on ingredients

Contains:

Name	Concentration % (C)	Classification
CALCIUM HYDROXIDE <i>C.A.S. number</i> 1305-62-0 <i>EC number</i> 215-137-3	12,00 ≤ C < 15,00	Xi R41
ETHANOLAMINE <i>C.A.S. number</i> 141-43-5 <i>EC number</i> 205-483-3 <i>INDEX number</i> 603-030-00-8	0,10 ≤ C < 0,15	C R34 Xn R20/21/22 Xi R37
3(2H)-ISOTHIAZOLONE, 5-CHLORO-2-METHYL-, MIXT. WITH 2-METHYL-3(2H)-ISOTHIAZOLONE <i>C.A.S. number</i> 55965-84-9 <i>INDEX number</i> 613-167-00-5	0,0015 ≤ C < 0,0515	T R23/24/25 C R34 Xi R43 N R50/53

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

4. First aid measures

EYES: Wash immediately with plenty of water for at least 15 minutes and seek medical advice at once.

SKIN: Immediately take off all contaminated clothing and have a shower. Seek medical advice.

INGESTION: Have the patient drink water as much as possible and seek medical advice immediately. Do not induce vomiting before consulting a doctor.

INHALATION: Immediately seek medical advice. In the meantime, remove the patient to open air, far from the contaminated premises; if respiration stops or is difficult, give an artificial respiration adopting the proper measure for the helper.

5. Fire-fighting measures

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SUITABLE EXTINGUISHING MEDIA

The extinction equipment should be of the conventional kind: carbon dioxide, foam, powder and nebulised water.

EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

None in particular.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or a self-respirator (self-protector) in the event of large quantities of foam.

6. Accidental release measures

PERSONAL PRECAUTIONS

Wear appropriate protective equipment. Send away individuals who are not suitably equipped. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or the leaked product before donning appropriate protective gear. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, refer to the other sections of this sheet.

ENVIRONMENTAL PRECAUTIONS

The product must not penetrate the sewers, surface water, ground water and neighbouring areas. Dilute the product well with water after collection.

METHODS FOR CLEANING UP

Suck the liquid into a suitable container (made of material not incompatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, tripoli powder, universal cement, etc). Neutralise remaining material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

7. Handling and storage

Store in a well ventilated place, keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, bright flames and sparks and other sources of ignition.

8. Exposure control / personal protection.

8.1 Exposure limit values

Product name	Type	Country	TWA/8h		STEL/15min		
			mg/m ³	ppm	mg/m ³	ppm	
CALCIUM HYDROXIDE	TLV-ACGIH		5	1,6			
	OEL	IRL	5				
	WEL	UK	5				
ETHANOLAMINE	TLV-ACGIH		7,5	3	15	6	Skin
	OEL	EU	2,5	1	7,6	3	Skin
	OEL	IRL		3		6	Skin
	WEL	UK		3		6	Skin
TITANIUM DIOXIDE	TLV-ACGIH		10	3,1			
	OEL	IRL	4				
	WEL	UK	4				
1,2-PROPANEDIOL	OEL	IRL	10				
	WEL	UK		150			

8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent. If such operations do not make it

possible to keep the concentration of the product below the permitted workplace exposure thresholds a suitable respiratory tract protection must be used. See product label for hazard details during use. Ask your chemical substance suppliers for advice when choosing personal protection equipment. Personal protection equipment must comply with the rules in force indicated below.

HAND PROTECTION

Protect hands with category II (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVC, neoprene, nitril or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

EYE PROTECTION

Wear hood visor or protective visor together with airtight goggles (ref. standard EN 166)

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

RESPIRATORY PROTECTION

If the threshold value for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an B or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

An emergency eye washing and shower system must be provided.

9. Physical and chemical properties

Colour	White and the colour chart shades
Odour	Characteristic
Appearance	Paste
Solubility	Mixable in water
Viscosity	Tixotropico
Vapour density	Not available
Evaporation Rate	Not available
Reactive Properties	Not available
Partition coefficient: n-octanol/water	Not available
pH	12,5-13,5
Boiling point	Not available
Flash point	100 °C
Explosive properties	Not available
Vapour pressure	Not available
Specific gravity	1,250 Kg/l
VOC (Directive 2004/42/EC) :	58,00 g/litre

10. Stability and reactivity

The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbon oxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air.

Propylene glycol: it is hygroscopic, stable at normal conditions; at high temperatures, it tends to oxidize yielding propionaldehyde as well as lactic and acetic acid.

Monoethanolamine reacts basically in water and violently with strong acids.

2-amino-2-methyl propano : in case of fire, C and N oxides develop; keep far away from oxidizing agents and acids; incompatible with Cu and its alloys.

11. Toxicological information

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

Please take all the proper measures to reduce harmful effects on aquifers.

3(2H)-ISOTHIAZOLONE, 5-CHLORO-2-METHYL-, MIXT. WITH 2-METHYL-3(2H)-ISOTHIAZOLONE
LC50 (96h) 14,8 mg/l oncorhynchus mykiss
EC50 (48h) 8 mg/l daphnia magna
IC50 (72h) 1,67 mg/l selenastrum capricornutum

13. Disposal consideration

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

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

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IRRITANT

- R41** RISK OF SERIOUS DAMAGE TO EYES.
S 2 KEEP OUT OF THE REACH OF CHILDREN.
S26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
S39 WEAR EYE/FACE PROTECTION.

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

VOC (Directive 2004/42/EC) :

Decorative effect coatings.

VOC given in g/litre of product in a ready-to-use condition :

Limit value: 300 (2007) - 200 (2010) VOC of product : 58,00

16. Other information

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

- R41** RISK OF SERIOUS DAMAGE TO EYES.
R20/21/22 HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R34 CAUSES BURNS.
R37 IRRITATING TO RESPIRATORY SYSTEM.
R23/24/25 TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R43 MAY CAUSE SENSITIZATION BY SKIN CONTACT.
R50/53 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments;
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX);
3. Regulation (EC) 1272/2008 (CLP) of the European Parliament;
4. Regulation (EC) 1907/2006 (REACH) of the European Parliament;
5. The Merck Index. - 10th Edition;
6. Handling Chemical Safety;
7. Niosh - Registry of Toxic Effects of Chemical Substances;
8. INRS - Fiche Toxicologique (toxicological sheet);
9. Patty - Industrial Hygiene and Toxicology;

10. 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:

02/03/07/08/11/12/13/15