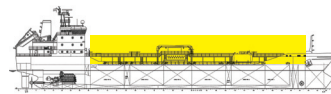


# RUST CONVERTER



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## RUST CONVERTER FOR USE ON RUSTED STEEL AS PRE-PAINING PREPARATION

### PHYSICAL DATA

Properties: Based on water reducible chelating polymers. Does NOT contain Phosphoric Acid.

Appearance: Milky white coloured liquid

Specific Gravity : 1.0 (20° C)

Viscosity : 15 mPa. s at 20° C.

Flash Point (PMCC): None

pH value: : 1.6

Stability : More than 1 year in closed pail

### DESCRIPTION

Rust converter for use on rusted steel and sandblasted steel as a pre-coating preparation. It neutralises the corrosion process by reacting quickly with the rust and transforms iron oxides into stable insoluble blue-black metal-organic complex inert surface. It gives a thorough chemical passivation of substrate making it a sound base for application of subsequent paint or coating systems. It is an excellent adhesion promoter for subsequent paint system and leaves a water insoluble hydrophobic film.

It is NON-HAZARDOUS, NON-FLAMMABLE and DRY FILM IS FIRE RETARDANT. Can be applied easily by brush, roller or spray and may also be applied to damp/wet rusted surfaces. 1 liter covers approx. 20 square metres and has a reaction time of only 3 hours. It is compatible with mostly used paint types and coating systems, alkyd systems, modified alkyds, chlorinated rubber, epoxies, polyurethanes, vinyls and the new water-based paint systems. It gives you cost-effective corrosion control and long term protection qualities.

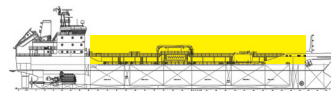
### APPLICATION

On all rusted steel surfaces before painting or repainting when preparation by sandblasting is a problem, e.g. cargo holds, decks, hatch covers, super structures, pipe lines, winches, rails etc. It is also used on sandblasted surfaces to prevent or passivate "flash rust". Beyond being particularly suitable for use in the highly corrosive marine atmosphere it is indeed also suitable for use on offshore oilrigs, in shipyards and refineries.

### DIRECTION FOR USE

Remove loose rust, rust scales/flakes by thorough wire brushing. Millscale, rust chips, blisters, deteriorated paints, oil, grease etc. should also be removed if present. In heavy industrial and marine atmospheres rust always contains soluble salts. It is important to remove atmospheric salts by water wash with freshwater prior to application of RUST CONVERTER. RUST CONVERTER is ready for use. One single thin application is sufficient. Apply by brush, roller or spray. 1 litres covers approx. 20 m<sup>2</sup>. Reaction time is 3 hours and paints/coatings must not be applied sooner. If the rust converter is applied in confined areas, reaction time may be somewhat longer. It is not a paint. Treated surfaces must be protected by suitable paints/coatings, preferably within 48 hours after application of the rust converter. Equipment should be washed and flushed in clean water immediately after use.

# RUST CONVERTER



## CAUTION

The rust converter should NOT be applied on hot surfaces above 40° C such as for instance a deck area in sunny tropical climate. Such areas should be treated only when the area has cooled down during the evening and left for reaction overnight.

## APPLICATION OF RUST CONVERTER TO AN OIL TANKER HATCH COVER



**Step 1**  
Preparation of the surface can be made also by wire brushing. It is advisable ST-2 Standard preparation. If present remove rust chips, millscale, blisters, grease etc.



**Step 2**  
Flushing with fresh water to remove atmospheric salts.



**Step 3**  
Starting the application of RUSTCONVERTER by brush or roller, depending of the surface structure.



**Step 4**  
Continuing RUST CONVERTER application.



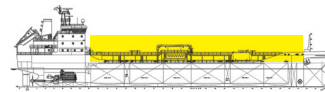
**Step 5**  
Hatch cover surface immediately after RUST CONVERTER application.



**Step 6**  
Hatch cover surface after 3 hours application. The surface is ready for painting that must be done within 48 hours from RUST CONVERTER application.

**IMPORTANT:** WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, THIS INFORMATION IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU DO A TEST TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION FURNISHED BY URRUTY GG NIEGO SRL HEREUNDER ARE GIVEN GRATIS, AND URRUTY GG NIEGO SRL ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

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## Safety Data Sheet

### 1. Identification of the substance / preparation and the Company

#### 1.1 Identification of the substance or preparation

Product name RUST CONVERTER

Chemical name and synonym RUST CONVERTER

#### 1.2 Use of the substance / preparation

Intended use CHELATING AGENT / PRIMER

#### 1.3 Company identification

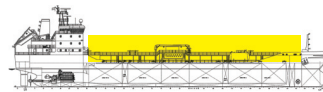
Name Urruty gg Niego S.r.l.  
Full address Via al Santuario di N.S. Guardia 58 a  
District and Country 16162 Genova Bolzaneto (GE)  
Italia  
Tel. + 39 010 711395  
Fax + 39 010 713120

e-mail address of the competent person responsible for the Safety Data Sheet info@uniservicemarine.com

#### 1.4 Emergency telephone

For urgent inquiries refer to First Aid Information: Centro Antiveleni  
Milano - Niguarda  
Tel./Phone: 02 - 66101029  
(specialized in chemical products poisoning).

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## 2. Hazards Identification

This product is not dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Nevertheless, this preparation contains dangerous substances in concentrations that must be declared in section No. 3 and requires a safety data sheet containing all the information required under the Regulation (EC) 1907/2006 and subsequent amendments.

## 3. Composition / Information on ingredients

Contains:

Name	Concentration % (C)	Classification
OXALIC ACID	1 <= C < 1,5	Xn R21/22
CAS No 144-62-7		
CE No 205-634-3		
Index No 607-006-00-8		

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

## 4. First aid measures

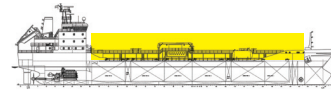
**EYES:** Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

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

**INHALATION:** Remove to open 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.

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## 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 fume.

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## 6. Accidental release measures

### PERSONAL PRECAUTIONS

Eliminate sources of ignition (cigarettes, flames, sparks, etc.) from the area in which the leak occurred. If there are no contraindications, spray powder with water to prevent the formation of dust. Use breathing equipment if powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or leaked product before donning appropriate protective gear. Send away individuals who are not suitably equipped. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, see the other sections of this sheet.

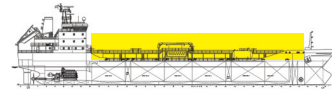
### ENVIRONMENTAL PRECAUTIONS

The product must not penetrate the sewer system, surface water, ground water and neighbouring areas.

### METHODS FOR CLEANING UP

Use spark proof mechanical tools to collect the leaked product and place in a plastic container. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

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## 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

Name	Type	Country	TWA/8h		STEL/15min		
			mg/m3	ppm	mg/m3	ppm	
OXALIC ACID							
	TLV-ACGIH		1		2	Skin	
	OEL	EU	1			Skin	
	OEL	IRL	1		2	Skin	
	WEL	UK	1		2	Skin	

### 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.

#### HAND PROTECTION

Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC 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.

#### SKIN PROTECTION

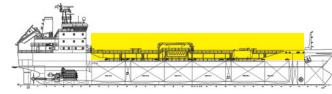
Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

#### 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.

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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).

## EYE PROTECTION

Use of protective airtight goggles (ref. standard EN 166) recommended.

---

## 9. Physical and chemical properties

Odour	
Appearance	liquid
Solubility	mixable in water
Colour	
Vapour density	Not available
Evaporation speed	Not available
Comburent properties	Not available
Partition coefficient: n-octanol/water	Not available
pH	Not available
Boiling point	Not available
Flash point	Not available
Explosive properties	Not available
Vapour pressure	Not available
Specific gravity	1,030Kg/l

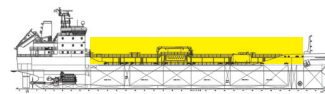
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## 10. Stability and reactivity

The product is stable even if the powders are potentially explosive when mixed with air.

Oxalic acid may decompose when heated to give off carbon monoxide. Saturated aqueous solutions (15%) act as medium-strong acids. It reacts violently with bases and strong oxidising agents.

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## 11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

OXALIC ACID: oral LD50 (mg/kg) 20000 (RAT) ; dermal LD50 (mg/kg) 20000 (RAT).

## 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.

## 13. Disposal consideration

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

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

### CONTAMINATED PACKAGING

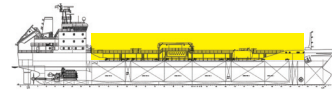
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## 14. Transport information

This product 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.



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## 15. Regulatory information

Warning symbols: None

Hazard sentences (R): None

Caution recommendations (S): None

Safety data sheet available upon request for professional users.

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

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## 16. Other information

Text of (R) phrases quoted in section 3 of the sheet.

R21/22            HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.

### 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.