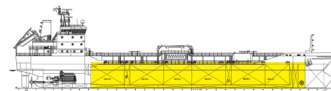


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TO REMOVE TRACES OF LEAD, HYDROCARBONS, CHLORIDES, AND SULPHIDES FROM CARGO TANKS

PHYSICAL DATA

Appearance: Colourless
Specific Gravity: 1.05
Flashpoint: None
pH concentrate: 5.5
pH 1% solution: 5.5

DESCRIPTION

Cleaning agent for the removal of traces of lead, hydrocarbons, chlorides and sulphides from zinc-silicate coated tank surfaces.

- Suitable for removal of traces of lead from zinc-silicate coated tank surfaces after transport of leaded gasoline.
- Suitable for the removal of traces of chloride and sulphide.
- Safe pH of 5.5 for application on zinc-silicate coated tank surfaces.
- Gives a good cleaning result with a reduced cleaning time.
- Concentrated version available for tank washing systems.

APPLICATION AND ADVANTAGES

The ordinary cleaning method with a synthetic soap takes a lot of time and is insufficient. A weak acid solution in combination with synthetic soap gives a much better cleaning result. BUFFERCLEAN 5.5 is used as a final cleaning procedure, when leaded gasoline must be removed or when the tank has to be completely chloride or sulphide free, i.e. for shipping pure chemicals.

DIRECTIONS FOR USE

After the normal cleaning depending on the nature of the last cargo and subsequent rinsing with water the cleaning with BUFFERCLEAN 5.5 can start. Never dilute with river or seawater.

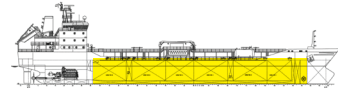
Handspraying method

Spray undiluted BUFFERCLEAN 5.5 onto the tank surface and let it act for about one hour. Repeat this procedure two times. Finally rinse the tank with abundant quantities of fresh water for about one hour.

Tankwashing systems Recirculation method

Add 10% BUFFERCLEAN 5.5 CONC. to water in a mixing tank. The resulting solution must be 1% of the total capacity of the tank to be cleaned. The solution is heated by means of heating coils in the tanks. The tanks are washed with a cargo pump, after which the used solution is recycled to the mixing tank. Usually, one solution is used to wash 2-3 tanks. BUFFERCLEAN 5.5 CONC. is circulated 2-6 hours at a temperature of 20-70°C. Of essential importance for passing the chloride test is a final rinse with chloride free, if possible, hot water.

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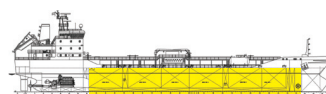
PROPERTIES

Weak acid, colourless liquid with a characteristic odour. Completely miscible with water. Suitable for use on all common metals, specially developed for cleaning zinc-silicate coatings.

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 BUFFERCLEAN 5.5

1.2 Use of the substance / preparation

Intended use General purpose detergent water based

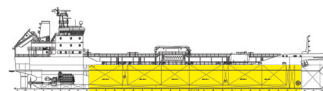
1.3 Company identification

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
Phone: 02 - 66101029 (specialized in
chemical products poisoning).

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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: Xn
R phrases: 20/21/22-41

2.2 Danger Identification

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
RISK OF SERIOUS DAMAGE TO EYES.

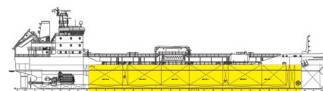
3. Composition / Information on ingredients

Contains:

Name	Concentration % (C)	Classification
MARLIPAL 31-9	15 <= C < 16,5	Xn R22
CAS No 68439-54-3		Xi R41
2-BUTOXYETHANOL	15 <= C < 16,5	Xn R20/21/22
CAS No 111-76-2		Xi R36/38
CE No 203-905-0		
Index No 603-014-00-0		

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

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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.

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

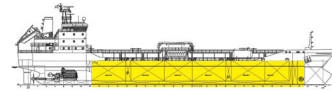
Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or a self-respirator (self-protector) in the event of large quantities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

6. Accidental release measures

PERSONAL PRECAUTIONS

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. If there are no contraindications, spray solid products with water to prevent the formation of dust. 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, see the other sections of this sheet.

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ENVIRONMENTAL PRECAUTIONS

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

METHODS FOR CLEANING UP

Use inert absorbent material (sand, vermiculite, diatomeous earth, Kieselguhr, etc.) to soak up leaked product. Collect the majority of the remaining material and deposit it in containers for disposal. 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.

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.

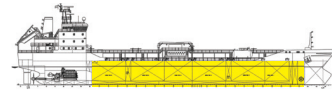
8.1 Exposure limit values

Name	Type	Country	TWA/8h		STEL/15min		
			mg/m ³	ppm	mg/m ³	ppm	
2-BUTOXYETHANOL	TLV-ACGIH		97				Skin
	OEL	EU	98	20	246	50	Skin
	OEL	IRL		20		50	Skin
	WEL	UK		25		50	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. 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.

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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).

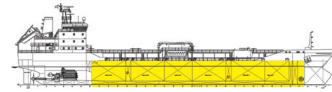
The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.

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.

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

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9. Physical and chemical properties

Colour	Not available
Odour	odour less
Appearance	liquid
Solubility	soluble
Specific gravity	1,00 Kg/l
Vapour density	Not available
Evaporation speed	Not available
Comburent properties	Not available
Partition coefficient: n-octanol/water	Not available
pH	7
Boiling point	Not available
Melting point	-5°C
Flash point	Not available
Lower explosive limit	1% (v/v)
Upper explosive limit	11% (v/v)
Vapour pressure	2000kPa
Specific gravity	0,982Kg/l

10. Stability and reactivity

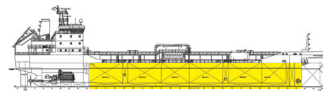
The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbon oxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air.

2-Butoxyethanol may form explosive peroxides; it reacts with light metals, such as aluminium (ref. H.C.S.).

11. Toxicological information

Acute effects: inhalation, cutaneous absorption and ingestion of this product are harmful. This product may irritate mucosae, the upper respiratory tract, and eyes. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness. In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema. Upon contact with skin, this product may irritate it, causing an increase in skin temperature, swelling and itchiness. Ingestion of even small amounts of

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this product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

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

2-BUTOXYETHANOL: oral LD50 (mg/kg) 470 (RAT) ; dermal LD50 (mg/kg) 220 (RABBIT) ; inhalation LC50 (rat) 2,21 mg/l/4h.

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. 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.

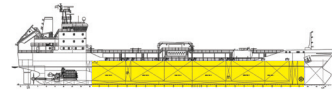
CONTAMINATED PACKAGING

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

14. Transport information

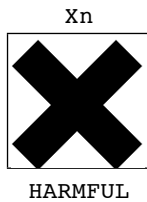
This product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

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15. Regulatory information

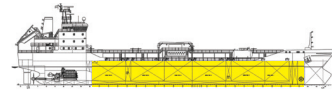


- R20/21/22 HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R41 RISK OF SERIOUS DAMAGE TO EYES.
S 9 KEEP CONTAINER IN A WELL-VENTILATED PLACE.
S25 AVOID CONTACT WITH EYES.
S26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
S36/37/39 WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND 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.

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16. Other information

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

R20/21/22 HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R22 HARMFUL IF SWALLOWED.
R36/38 IRRITATING TO EYES AND SKIN.
R41 RISK OF SERIOUS DAMAGE TO EYES.

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.