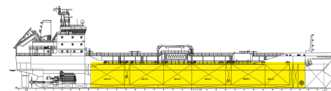


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MULTI-PURPOSE, WATER BASED NON-ALKALINE CLEANING AND DEGREASING AGENT



IMO APPROVED
MEPC.2/CIRC.13 Annex 10

PHYSICAL DATA

Appearance: Clear transparent liquid
Specific Gravity: 1.07
pH undiluted: 7.0
Solubility: complete fresh/seawater
Flash point: none

DESCRIPTION

UNIservice CTU is a multi-purpose, water based non-alkaline cleaning and degreasing agent, specifically formulated to meet the marine industry's requirements. It is based on the state-of-art most powerful biodegradable surface-active agents. It works well in hard as well as soft water. It can be used at room temperature or with hot water. It is ideal for removing soot and for cleaning extremely dirty tanks after petroleum products and mineral oils.

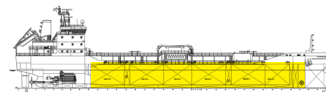
PRODUCT CHARACTERISTICS AND ADVANTAGES

- Non-flammable
- Leaves no film in the tanks
- Is completely soluble in water
- Suitable in sea and in fresh water
- Easy to apply
- Has no objectionable odor
- Low toxicity: contains no ethoxylated nonylphenol (NF),
- Biodegradable - Does not create pollution
- Economical to use
- Very effective cleaning action
- Does not require special handling or storing
- Can be upgraded with Alkaclean P350 or Rust Remover

APPLICATION

UNIservice CTU is a versatile cleaner. It is the most efficient and harmless product to effectively remove Luboils, Mineral Oils, Phtalates, Paraffines, Vegetable Oils and Animal Oils and Fats. Before using UNIservice CTU make sure the tanks and lines are well stripped and drained. A proper pre-cleaning will reduce the amount of product required. Flush the tanks with ambient seawater to remove remaining cargo to slop. Tanks containing drying or semi-drying oils such as vegetable and animal fats should be flushed or pre-washed or moistened as soon as possible after completion of discharge to prevent formation of hard residues. An individual cleaning operation is recommended for each type of cargo. Recycle tanks with increasing temperature for 2-8 hr, depending cargo

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and size of tank. This is a very important operation, as it will remove oily-mud and residues in the coating. The temperature used for pre-cleaning will depend on whether the cargo is drying, semi-drying or non-drying, and the cargoes melting point. Due to the fact that the zinc is porous, a prolonged pre-cleaning with lower temperature is highly advisable prior to introduction of chemicals on such lining.

DOSAGE AND APPLICATION PROCEDURE

For general degreasing and cleaning, apply UNIservice CTU with a 2-10% concentration in water (from 1 to 1050 parts water) by brushing or swabbing. Allow the product to penetrate for approximately 5 minutes, and then rinse with water to provide a clean, film-free surface.

- When mechanically cleaning with high-pressure spray equipment, apply UNIservice CTU with a 0,5% concentration in water (1 part UNIservice CTU to 200 parts water). When cleaning is complete flush tanks with large amount of warm seawater (2-3 hr) to remove any residual chemicals. Then flush tanks with freshwater to remove salts, mop and dry.
- For machine cleaning of tanks using mechanical spraying units, UNIservice CTU should be injected into the wash water supply line at a rate of 2 to 8 liters per ton of water.
- For bilge cleaning and cleaning of other contaminated areas, UNIservice CTU should be dosed at the rate of 1 liter per ton of bilge capacity or water used.
- When an alkaline cleaning is recommended UNIservice CTU can be mixed with ALKACLEAN P350 (caustic Potash based) at a rate of 10% i.e. 200 liters of CTU and 20 liters of ALKACLEAN P350. Same mixing with same rate can be done also with our RUST REMOVER (Orthophosphoric acid based) or PASSIVATING LIQUID (Nitric acid based)

Always remember that mixing UNIservice CTU with strong acids or strong alkaline products will lead to exothermal reaction. These recommended dosages should be used only as a guide. The chemical requirements for each cleaning will vary depending on the temperature, the nature and degree of contamination.

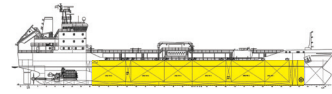
PROCEDURE FOR SPOT CLEANING

UNIservice CTU may be sprayed on the bulkhead neat or diluted, to areas where residues remain after tank washing. A heated dilution provides better cleaning action. The product should be allowed to stand for 30 minutes prior to rinsing soiled areas. Do not leave the product to dry on bare coating. Very dirty areas should be cleaned by flushing manually with high pressure, using fresh water, or by performing a re-circulation. For persistent deposits, agitation by scrubbing will assist the cleaning operation. Hot water will increase the cleaning effect.

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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 CTU

1.2 Use of the substance / preparation

Intended use Neutral Tankcleaning Detergent

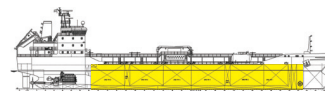
1.3 Company identification

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

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
MARLIPAL 31-9 CAS No 68439-54-3	3 <= C < 3,5	Xn R22 Xi R41
DIETHYLENE GLYCOL CAS No 111-46-6 CE No 203-872-2 Index No 603-140-00-6	3 <= C < 3,5	Xn R22

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

4. First aid measures

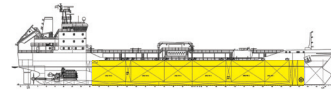
EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

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.

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.

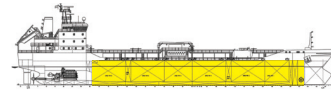
ENVIRONMENTAL PRECAUTIONS

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

METHODS FOR CLEANING UP

Use inert absorbent material (sand, vermiculite, diatomaceous 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.

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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
DIETHYLENE GLYCOL						
	OEL	IRL		23		Skin
	WEL	UK		23		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.

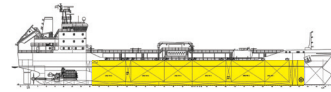
RESPIRATORY PROTECTION

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.

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

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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

Colour	Not available
Odour	odour less
Appearance	liquid
Solubility	mixable in water
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
Flash point	Not available
Explosive properties	Not available
Vapour pressure	Not available
Specific gravity	Not available

10. Stability and reactivity

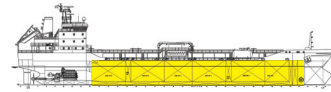
The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbon oxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air.

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.

DIETHYLENE GLYCOL: oral LD50 (mg/kg) 12565 (RAT) ; dermal LD50 (mg/kg) 11890 (RABBIT).

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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.

15. Regulatory information

Warning symbols: None

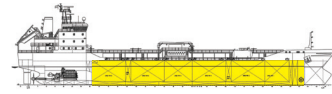
Hazard sentences (R): None

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.

R22 HARMFUL IF SWALLOWED.
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.

Changes to previous review

The following sections were modified:

01 / 08 / 09 / 13