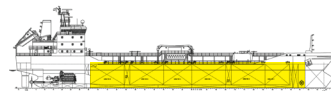


# ALKACLEAN SAFETY



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## THE MOST ADVANCED AND ECOLOGICAL VERSION OF ANY NON CAUSTIC TANK CLEANING COMPOUND



IMO APPROVED  
MEPC.2/CIRC.13 Annex 10

### PHYSICAL DATA

Appearance: Clear liquid  
Specific gravity: 1,1  
Flash point: None  
Ph 1% solution: 10  
Classification: Not regulated

### DESCRIPTION

A non caustic heavy alkaline cleaner formulated for cleaning animal and vegetable oils from tanks with special coatings including zinc.

- Adds substantial degree of safety to the washing process due to its non caustic base.
- Minimizes the extreme hazards to ships personnel is handling caustic based materials.
- Bio Degradable / Non-Toxic / Non Pollutant.
- Incorporated in the product are inhibitors to prevent corrosion of metals such as zinc, aluminum, copper, brass, and tin. This is a critical requirement for vessels using zinc protective tank coatings.

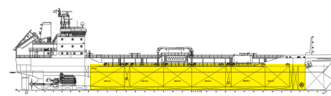
### INTRODUCTION:

UNIservice ALKACLEAN SAFETY is specifically designed to improve cleaning efficiency while overcoming the limitations imposed by caustic based cleaning compounds. ALKACLEAN SAFETY can also be used as a deodorizing wash in all applications.

### ADVANTAGES:

- **SAPONIFYING ANIMAL AND VEGETABLE OILS AND FATS:**  
Saponification is the alkali induced process of splitting animal and vegetable fats to form a soluble soap. ALKACLEAN SAFETY breaks oil into fine droplets which are saponified easily.
- **EMULSIFYNG MINERAL OILS AND GREASES:**  
Oils which cannot be saponified are removed by emulsification. ALKACLEAN SAFETY homogenizes grease, oil, and fat particles into small sizes and disperses them evenly in water. Particles are kept segregated and prevented from recombining and reattaching to the cleaned surface.
- **DEFLOCCULATION:**  
Solid dirts are not removed by saponification or emulsification. ALKACLEAN SAFETY breaks up agglomerated masses into very fine particles which repel each other.

# ALKACLEAN SAFETY



## APPLICATION:

Our general recommendations are for cleaning tanks for edible cargos to a degree of cleanliness where no contaminants are to be tolerated in the next cargo. Recirculate or inject ALKACLEAN SAFETY at 5% strength in fresh water after the tanks have been stripped and rinsed. Modified procedures are required with drying oils. ALKACLEAN SAFETY can also be applied neat in spray applications followed by a rinse. UNIservice Service Engineers are available to review your specific problem and offer recommendations for the best results at minimum costs.

## DOSAGE TABLE

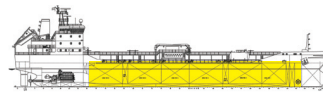
Approximate strengths for various cargo residues

Cargo Residue	Handspray	Recirculation	Direct injection	Approximate recirculation consumption Ltrs. per 1000 m <sup>3</sup> Tank capacity
Fatty acids, fatty alcohols	100%	3-5%	2-5%	180-300
Fish oils	100%	3-5%	2-5%	180-300
Drying & semi-drying vegetable oils	50-100%	2-4%	1-3%	180-240
Non-drying vegetable oils	50-100%	2-4%	1-3%	180-240
Petrochemicals		2-4%	3-5%	120-240
Light hydrocarbons		2-4%	3-5%	120-240
Light hydrocarbon film		2-3%	2-3%	120-180

Consumption quantities above relate to a multi-tank cleaning operation where the chemical solution is re-used

**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 ALKACLEAN SAFETY

#### 1.2 Use of the substance / preparation

Intended use Non caustic tank heavy alkaline cleaner.

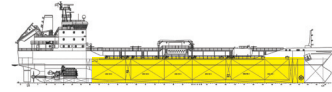
#### 1.3 Company identification

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  
Informazioni di primo soccorso/First Aid  
Information: Centro Antiveleni Milano -  
Niguarda  
Tel./Phone: 02 - 66101029  
(specializzato in intossicazioni di prodotti  
chimici / 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	3,5 <= C < 4	Xn R22
CAS No 68439-54-3		Xi R41
2-BUTOXYETHANOL	3 <= C < 3,5	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.

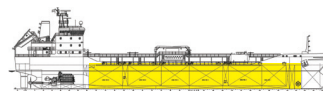
## 4. First aid measures

**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.

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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.

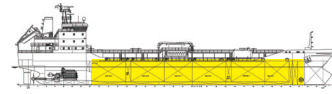
### ENVIRONMENTAL PRECAUTIONS

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,

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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/m3	ppm	mg/m3	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.

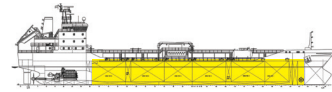
#### HAND PROTECTION

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.

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## 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).

## EYE PROTECTION

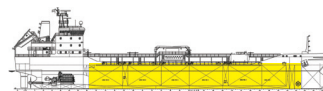
Use of protective airtight goggles (ref. standard EN 166) recommended.

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## 9. Physical and chemical properties

Colour	Not available
Odour	odour less
Appearance	liquid
Solubility	soluble
Vapour density	Not available
Evaporation speed	Not available
Comburent properties	Not available
Partition coefficient: n-octanol/water	Not available
pH	9
Boiling point	105°C
Melting point	-3°C
Flash point	Not available
Explosive properties	Not available
Vapour pressure	2000kPa
Specific gravity	1,050Kg/l

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## 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

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.

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. Neat product residues should be considered special non-hazardous waste.

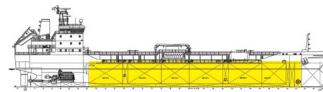
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

### CONTAMINATED PACKAGING

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



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## 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.

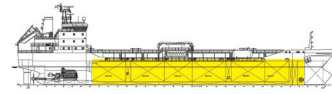
Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.

## 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.

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## 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:

08