

# Toxicological Assessment of U/A

This safety assessment relates to the formulation described below. If the information below is incorrect, please amend and resubmit for reassessment.

Unico Ltd

Formulation Ref: 7033

Final Retailer: N/A

## CONSUMER EXPOSURE

Product Class	Hard Surface Cleaner Professional use
Physical form	Liquid
Amount of product used per application	Supplied in 750ml and 5 litre
Part of body exposed to undiluted product	Hands
Frequency of exposure to undiluted product	Several times a day
Time of exposure to undiluted product	Thoroughly wash hands after use

This product has been assessed taking into account that it will be used only as a professional use product

## PRODUCT FORMULATION

The chemical names shown below refer to the raw materials used to formulate this product. The identity of the raw materials is not necessarily based on the International Nomenclature of Cosmetic Ingredients (INCI) and does not represent the INCI listing that must be shown on the product label and is for assessment purposes only. An outline INCI label can be prepared on request.

Chemical Name	Conc	% Active	Active in Product	CAS No	Einecs No
AQUA	53	100	53	7732-18-5	231-791-2
BENZALKONIUM CHLORIDE	27	60	16.2	8001-54-5 / 63449-41-2 / 68391-01-5 / 68424-85-1 / 85409-22-9 /	264-151-6 / 269-919-4 / 270-325-2 / 287-089-1
C9-11 ALCOHOL ETHOXYLATE (9EO)	11	100	11	61788-71-7	
TRISODIUM NTA	4.5	84	3.78	5064-31-3	225-768-6
SODIUM METASILICATE	4.5	100	4.5	6834-92-0	229-912-9

## SAFETY LABELLING

Keep out of reach of children.

Keep away from eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

For professional use only

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**TOXICOLOGICAL & REGULATORY REVIEW**

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Substances are present which are classified as Dangerous on Health criteria and the formulation is classified as Dangerous.

A formulation for a general purpose cleaning liquid containing surfactant and permitted preservative, namely benzalkonium chloride currently listed as registered in the Biocidal Products Directive (page 54) 98/8/EC under CAS number 68424-85-1, EC number 270-325-2 (5th review EC No. 1451/2007). May cause slight eye irritation and minimal skin irritation considering the levels of surfactants that are present.

It must be ensured that the product complies with the EU Detergents Regulations 648/2004, particularly that the surfactant used complies with all Biodegradation Requirements. The product must also be labelled in accordance with the Detergents Regulations 648/2004, relevant information made available to Poison Centres and a Labelling Data Sheet must be available for consumers upon request.

If used as directed, use of this product should be uneventful.

**Effects of the product as supplied on the skin**

May cause burns to the skin

Repeated exposure to the formulation as supplied is unlikely to produce allergy by skin contact.

Exposure to this product is unlikely to result in phototoxic effects.

Unlikely to cause damage to internal organs following absorption through the skin.

**Effects of the product as supplied on the eye**

May cause burns to the eye and cornea should contact with the eye occur

**Effects following ingestion of the product as supplied**

The formulation as supplied if swallowed is likely to cause irritation to the mouth and upper digestive tract.

**Effects of inhaling the product**

Inhalation of the vapour may cause slight irritation of the nose and upper respiratory tract.

**Overall product safety statement**

Keep out of reach of children.

Keep away from eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

For professional use only

Under normal or reasonably foreseeable conditions of use, product made to this formulation is unlikely to produce an abnormally high number of adverse reactions. The product will give users the level of safety they can reasonably expect.

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**Toxicological Safety Assessor**  
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Date: 06 Feb 2009

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## INGREDIENT TOXICOLOGY REVIEWS

Chemicals present	Conc	Toxicological Summary	Classification	OEL
AQUA	53	Simply water unlikely to cause irritation, allergy or harm.	Unclassified	
BENZALKONIUM CHLORIDE	16.2	The material as supplied is corrosive to the skin, eyes and mucous membranes. When diluted in a product at up to 1% it is unlikely to cause irritation but it may cause sensitization by skin contact in some sensitive people on prolonged exposure. LD50 oral and dermal in rat show harmful classifications. This product is supplied as a 50% solution. Used as an antiseptic, fungicide, bactericide, disinfectant. Listed in Annex II of the Biocides Directive Commission Regulation (EC) No 1451/2007 therefore this preservative is a permitted biocide/preservative in the EU for use in toys, detergents and other general products, only some cas numbers for the material listed.	R21/22-34-50	
C9-11 ALCOHOL ETHOXYLATE (9EO)	11	A standard nonionic surfactant based on the ethoxylation by 9 moles of ethylene oxide of C9-11 alcohol. Irritating to skin and eyes and harmful if swallowed. When used in formulated products the irritancy will be reduced but effects on the eye will still be noted. Widely used in household and personal products with good acceptance in the marketplace.	R22, R41	
TRISODIUM NTA	3.78	Nitrilotriacetic acid and its sodium salts have been produced since the 1930s for use as metal chelating agents in household and industrial detergents, industrial water treatment, textile preparation and metal finishing. Occupational exposure to nitrilotriacetic acid and its salts may occur during its production and use, but data on levels are limited. Exposure to nitrilotriacetic acid, and presumably to its water-soluble metal complexes, occurs as a result of its presence in household detergents and in drinking-water. Low potential to irritate the skin or eyes. Unlikely to cause allergy. Overall evaluation by International Agency for Research on Cancer (IARC) 'Nitrilotriacetic acid and its salts are possibly carcinogenic to humans (Group 2B)'.	Xn, R22, 36/38, R40	
SODIUM METASILICATE	4.5	A very basic substance rarely used in cosmetics due to its high pH and alkalinity. May be used in certain professional use only hair products where great care can be taken to ensure that the product does not enter the eyes. May cause severe burns, permanent damage to eyes, irritating to the respiratory system	R34-37	OES for sodium hydroxide 10min. STEL 2mg/m3 EH40/93 (UK) MAK for sodium hydroxide 8h. TWA 0.6mg/m3 (Germany) TLV for sodium hydroxide 15min. STEL 2mg/m3 (USA)