

Vikingprodukter AB

UNI-CLEAN SKY

Decontamination solution for chemical toilets on aeroplanes

We are very happy to be able to send over information about our product, Uni-Clean Sky, which has been specially developed in order to meet the strict requirements that are set within aviation.

The product has been adapted to the increasingly more stringent environmental requirements that are set today without, for that matter, compromising on efficiency. We have also endeavoured to develop a very pleasant fragrance for the product that retains its freshness for the entire period of use and the product is blue as is required within aviation.

Uni-Clean Sky Decontamination Solution is easily biologically degradable. Naturally, it is not flammable in any concentration.

Uni-Clean Sky decontamination solution is a high concentrate that is to be diluted 1:200 in water. It is supplied in 30 litre cans, 205 litre drums and 1000 litre containers.

Uni-Clean Sky has naturally been approved by the Swedish Chemicals Agency with reg. no. 4938 and also by Scientific Material Inc. (SMI), Florida, USA. It has therefore been approved for use within aviation throughout the entire world.

Uni-Clean Sky has been adapted to the requirements that are set within the EU according to Directive 98/8/EC of the European Parliament and of the Council concerning the placing of biocidal products on the market and according to REACH - Regulation (EC) no. 1907/2006 of the European Parliament and of the Council.

A first class product from Vikinghjärmen Produkter AB
Approved by the Swedish Chemicals Agency with reg. no. 4938
Approved by Scientific Material Inc. (SMI), Florida, USA

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Vikingprodukter AB

UNI-CLEAN SKY Decontamination Solution User Instructions

Uni-Clean Sky is intended for use in the waste tank of chemical toilets on aeroplanes. The product prevents the growth of bacteria in chemical toilets and has a long-lasting effect. It has a pleasant fragrance that prevents toilet odours.

Use and dosage

1 part Uni-Clean Sky decontamination solution to 200 parts water.

Emptying

The contents of the lavatory/toilet tank are to be emptied at the proper site in accordance with local regulations.

Cleaning of equipment

The equipment is to be rinsed with water, which can then be poured into the drain.

Disposal of packaging and discarded product

Discarded concentrated product constitutes hazardous waste.

Small containers (1-5 litre) are to be left at the hazardous waste collection point in the municipality. Small packaging that is discarded, empty and clean is to be handed in for material recycling and left in the section for rigid plastic packaging.

Contact the local waste management company when needing to discard concentrate in containers. Containers are to be returned to the manufacturer.

Small spills are to be wiped up with a cloth. Larger amounts are to be collected using absorbent material e. g. sand, earth or vermiculite and put in a container for transportation to the waste disposal plant. After that, wash down the area with water and/or wipe with a damp cloth.

Precautionary measures

Avoid contact with the skin and eyes.

Use protective goggles and protective gloves when there is a risk of being splashed.

Do not use near to foodstuff

The product can degrease and dehydrate the skin

The product is irritating to eyes and skin

First aid instructions

Inhalation Seek fresh air.

Skin contact Remove affected clothing. Wash the skin with soap and water. Seek medical attention if any discomfort arises.

Eye contact Rinse the eyes immediately with water for at least 5 minutes. Hold the eyelids wide open. Visit a hospital or eye doctor if any irritation arises and continues.

Ingestion Rinse the mouth out with water.

Information about specific dangers to the environment

Concentrated product is classified as very toxic to aquatic organisms.

Active substance

Alkyl (C12-16) dimethyl benzyl ammonium chloride (CAS no. 68424-85-1) 7.5g/100g

Registration number

4938 Swedish Chemicals Agency (www.kemi.se)

9503025-R SMI, Scientific Material International Inc. Florida, USA

Manufacturer Vikinghjärmen Produkter AB

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MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name Uni-Clean Sky
Registration number 4938
Area of application For use against microorganisms in chemical toilets on aeroplanes
Only for commercial use
Manufacturer Vikinghjälmen Produkter AB
Box 6137
SE-102 32 Stockholm
Tel: +46-(0)8-31 74 60
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www.vikingprodukter.se
Telephone number in emergency situations 112, Swedish Poisons Information Centre

2. HAZARDS IDENTIFICATION

Irritating to eyes and skin
May cause sensitisation by skin contact
Very toxic to aquatic organisms



4. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous substances	%	CAS no.	Hazard symbols*	Risk phrases*
Alkyl (C12-16) dimethyl benzyl ammonium chloride	7,5	68424-85-1	C, Xn, N	R34, R21/22, R50
But-2-yne-1,4-diol	1	110-65-6	C, T, Xn	R34, R23/25, R21 R48/22, R43

Other substances

Fatty alcohol (C12-C14, ethoxylated, propoxylated), 1,2-propanediol, Perfume, Sodium gluconate, Ethylene glycol, C.I. 42735

* For descriptions of Hazard symbols and Risk phrases see section 16

5. FIRST AID MEASURES

Inhalation

Seek fresh air.

Skin contact

Remove affected clothing.

Wash the skin immediately with soap and water.

Seek medical attention if any discomfort arises and continues.

Eye contact

Rinse the eyes immediately with water for at least 5 minutes. Hold the eyelids wide open.

Visit a hospital or eye doctor if any irritation arises and continues.

Ingestion

Rinse the mouth out with water.

6. FIRE FIGHTING MEASURES

The product is not flammable

Fire extinguishing media

Use extinguishing media appropriate for surrounding materials.

Combustion products

No information.

Protective measures in the event of fire

Take measures as one would with any other type of fire. Nothing specific.

6. ACCIDENTAL RELEASE MEASURES

Personal protective measures

Avoid contact with the skin and eyes. Use protective goggles and protective gloves when necessary.

Environmental protection measures

Prevent the release of large amounts of concentrated product into the drainage system.

Contact Räddningstjänsten (Swedish Rescue Services) in the event of major releases.

Decontamination methods

Small amounts are to be wiped up with a cloth.

Larger amounts are to be collected using absorbent material, e.g. sand, earth or vermiculite and put in a container for transportation to the waste disposal plant (see also section 13).

After that, wash down the area with water and/or wipe with a damp cloth.

7. HANDLING AND STORAGE

Handling

Avoid contact with the skin and eyes.

The product must be diluted before use.

1 and 5 litre containers

First, fill the toilet tank with water up to the level of the pump, then add the decontamination solution.

Dosage - 1 dl of decontamination solution for a tank volume of 10 litres. To be mixed with 3-4 litres of water.

Closed containers

First, fill the dilution tank with water, then add the decontamination solution.

Dosage - 1 part decontamination solution to 200 parts water.

Storage

To be stored frost free.

To be stored in its original packaging and separate from foodstuff and animal feed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values (AFS 2005:17)

	LLV		STV		Remark*	Note**
	ppm	mg/m ³	ppm	mg/m ³		
Ethylene glycol	10	25	20	50	H	27

* H - The substance can easily be absorbed through the skin

** 27 - The limit value refers to the total concentration of vapour and aerosol.

Exposure controls

Avoid contact with the skin and eyes.

Wash hands with soap and water after using the product.

Personal protective equipment

Use protective goggles and protective gloves when necessary.

Access to an eye bath.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Bluish liquid
Odour	Characteristic
pH (20°C)	8-9 (concentrate) approx. 8 (diluted solution)
Density	1010 g/L
Boiling point	approx. 100 °C

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Avoid frost.
Avoid direct sunlight.

Incompatible materials and chemicals

The product can be corrosive to stainless steel.

Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION

No toxicological tests have been done on the product.

Based on the component substances, the product is classified as R36/38 – Irritating to eyes and skin as well as R43 – May cause sensitisation by skin contact.

The product can degrease and dehydrate the skin.

Information about the component substances

Alkyl (C12-16) dimethyl benzyl ammonium chloride (7.5%)

Acute dermal toxicity: LD₅₀ rat 400 - 2,000 mg/kg

Acute oral toxicity: LD₅₀ rat 200 - 2,000 mg/kg

Allergy-inducing properties: Non allergy-inducing.

In vitro mutagenicity and genotoxicity: Ames test: Non-mutagenic.

But-2-yne-1,4-diol (1%)

Acute dermal toxicity LD₅₀ rat 659 mg/kg

Acute oral toxicity LD₅₀ rat 105 mg/kg

Acute inhalation LC₅₀ rat 4h 2.5 mg/l

LC₅₀ rat 2h >0.15 mg/l.

Rabbit skin irritation (OECD 404)

Rabbit eye irritation (OECD 405)

12. ECOLOGICAL INFORMATION

No ecotoxicological tests have been done on the product.

Based on the component substances, the product is classified as R50 – Very toxic to aquatic organisms.

Information about the component substances

Alkyl (C12-16) dimethyl benzyl ammonium chloride (7.5%)

Fish toxicity: LC₅₀ 96h 0.85 mg/l

Toxicity for Daphnia: EC₅₀ 48h 0.015 mg/l

Algal toxicity: IC₅₀ 72h 0.03 mg/l

Biodegradability: Easily biodegradable.

But-2-yne-1,4-diol (1%)

Fish toxicity: LC₅₀ Fish 96h 53.6 mg/l

Toxicity for Daphnia: EC₅₀ 48h 26.8 mg/l

Algal toxicity: IC₅₀ 72h 480 mg/l

Biodegradability: Easily degradable -100% is degraded in 5 days

13. DISPOSAL CONSIDERATIONS

Discarded concentrated product constitutes hazardous waste according to SFS 2001:1063.

EWC code: 20 01 19 Pesticides

Properties of the waste that render it hazardous:

H 4 - Irritant: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.

H 14 - Ecotoxic: substances and preparations which present or may present immediate or delayed risks for one or more sectors of the environment.

Discarded, empty and clean 1 and 5 litre packaging is to be handed in for material recycling and left in the section for "rigid plastic packaging".

Empty containers are to be returned to the manufacturer.

14. TRANSPORT INFORMATION

ADR/RID	UN no.	3082
	Proper shipping name	Environmentally hazardous substances, liquid, N.O.S.
	Class	9
	Classification code	M6
	Packaging group	III
	Limited amount	LQ7

15. REGULATORY INFORMATION

The product is classified as harmful and dangerous to the environment according to KIFS 2005:7

Hazard symbols

Xi	Irritant
N	Dangerous to the environment



Risk phrases

R36/38	Irritating to eyes and skin
R43	May cause sensitisation by skin contact
R50	Very toxic to aquatic organisms

Safety phrases

S2	Keep out of the reach of children
S24	Avoid contact with skin
S25	Avoid contact with eyes
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37	Wear suitable gloves

16. OTHER INFORMATION

Uni-Clean Sky is a decontamination solution that has been approved by the Swedish Chemicals Agency – Reg no. 4938

For use against microorganisms in chemical toilets on aeroplanes

Only for commercial use

The update concerns all sections (1-16).

Descriptions of hazard symbols and risk phrases

T	Toxic
C	Corrosive
Xn	Harmful
N	Dangerous to the environment
R21/22	Harmful in contact with skin and if swallowed
R21	Harmful in contact with skin
R23/25	Toxic by inhalation and if swallowed
R34	Causes burns
R43	May cause sensitisation by skin contact
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R50	Very toxic to aquatic organisms

Abbreviations

LLV	Level limit value
STV	Short-term value

Sources

Information from the manufacturer
Chemical Substances - database

Applicable regulations

[Europaparlamentets och rådets direktiv 98/8/EG](#) about the release of biocide products on the market.

REACH - REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

SFS 2001:1063 – Waste Ordinance

AFS 2005:17 - Occupational Exposure Limit Values and Measures against Air Contaminants

KIFS 2008:2 – The Swedish Chemicals Agency's Chemical Products and Biotechnical Organisms Regulations.

KIFS 2005:7 – The Swedish Chemicals Agency's Classification and Labelling of Chemical Products Regulations.

The Material Safety Data Sheet is designed by Barbro Ingemarsson, AdvocoTox consulting AB, www.advocotox.se, member of Konsultföreningen Kemiska miljö- och hälsorisker (www.kemi.nu).