



## SAFETY DATA SHEET

### Smartsan V

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name Smartsan V

Product number 82-2

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Cleaning agent. - Disinfectant.

Uses advised against No specific uses advised against are identified.

##### 1.3. Details of the supplier of the safety data sheet

Supplier Autosmart International Ltd  
Lynn Lane,  
Shenstone, nr Lichfield  
Staffordshire. WS14 0DH  
England  
www.autosmartinternational.com  
Tel: +44 (0) 1543 481616 (09:00 - 17:00)  
Fax: +44 (0) 1543 481549 (09:00 - 17:00)  
info@autosmartinternational.com

Contact person Mr. Russell Butler

##### 1.4. Emergency telephone number

Emergency telephone Mob: +44 (0) 7808 971321 (24hrs)  
Tel: +44 (0) 1543 481616 (09:00 - 17:00)  
Fax: +44 (0) 1543 481549 (09:00 - 17:00)

If you urgently need medical help or advice but it's not a life-threatening situation, call 111 free from any phone to speak to an NHS adviser. The 24-hour NHS 111 service can give you healthcare advice or direct you to the local service that can help you best.

The NHS 111 service will also be available via the harmonised European number for medical advice 116 117

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Aquatic Chronic 3 - H412

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**Classification (67/548/EEC or 1999/45/EC)** R52/53.

### 2.2. Label elements

**Hazard statements** H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements** P273 Avoid release to the environment.  
 P280 Wear protective gloves.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P391 Collect spillage.  
 P501 Dispose of contents/ container in accordance with national regulations.

**Supplemental label information** BPR001 Use biocides safely. Always read the label and product information before use.

**Detergent labelling** < 5% disinfectants, Contains TETRAMETHYLOLGLYCOLURIL, Mixture of 5-Chloro-2-methylisothiazol-3(2H)-one and 2-Methylisothiazol-3(2H)-one with magnesium chloride and magnesium nitrate, Formaldehyde

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>DIDECYLDIMETHYLAMMONIUM CHLORIDE</b>			<b>0.7&lt;1.0%</b>
CAS number: 7173-51-5	EC number: 230-525-2		
M factor (Acute) = 10	M factor (Chronic) = 1		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>		
Acute Tox. 4 - H302	C;R34 Xn;R22		
Skin Corr. 1B - H314			
Aquatic Acute 1 - H400			
Aquatic Chronic 1 - H410			
<b>PROPAN-2-OL</b>			<b>0.2&lt;0.5%</b>
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-xxxx	
Substance with a Community workplace exposure limit.			
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>		
Flam. Liq. 2 - H225	F;R11 Xi;R36 R67		
Eye Irrit. 2 - H319			
STOT SE 3 - H336			

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<b>2-AMINOETHANOL</b>		<b>0.2&lt;0.5%</b>
CAS number: 141-43-5	EC number: 205-483-3	REACH registration number: 01-2119486455-28-xxxx
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335		<b>Classification (67/548/EEC or 1999/45/EC)</b> C;R34 Xn;R20/21/22

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin contact</b>	Rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Prolonged inhalation of high concentrations may damage respiratory system.
<b>Ingestion</b>	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
<b>Skin contact</b>	Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	May cause temporary eye irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
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### SECTION 5: Firefighting measures

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### 5.1. Extinguishing media

**Suitable extinguishing media** The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

## **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Neutralise with acid. Caution. May generate heat. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### 6.4. Reference to other sections

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**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in accordance with local regulations. Store away from the following materials: Acids. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Acid-reactive storage.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

##### 2-AMINOETHANOL

Long-term exposure limit (8-hour TWA): WEL 1 ppm 2.5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 3 ppm 7.6 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

#### 2-AMINOETHANOL (CAS: 141-43-5)

##### DNEL

Industry - Dermal; Long term systemic effects: 1 mg/kg/day

Industry - Inhalation; Long term systemic effects: 3.3 mg/kg/day

Industry - Inhalation; Long term local effects: 3.3 mg/kg/day

Consumer - Dermal; Long term systemic effects: 0.24 mg/kg/day

Consumer - Inhalation; Long term systemic effects: 2 mg/kg/day

Consumer - Inhalation; Long term local effects: 2 mg/kg/day

Consumer - Oral; Long term systemic effects: 3.75 mg/kg/day

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<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 0.085 mg/l</li> <li>- Marine water; 0.0085 mg/l</li> <li>- Intermittent release; 0.025 mg/l</li> <li>- Sediment (Freshwater); 0.425 mg/kg</li> <li>- Sediment (Marinewater); 0.0425 mg/kg</li> <li>- Soil; 0.035 mg/kg</li> <li>- STP; 100 mg/l</li> </ul>
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### PROPAN-2-OL (CAS: 67-63-0)

<b>DNEL</b>	<p>Industry - Inhalation; Long term systemic effects: 500 mg/m<sup>3</sup></p> <p>Consumer - Dermal; Long term systemic effects: 319 mg/kg/day</p> <p>Consumer - Oral; Long term systemic effects: 26 mg/kg/day</p> <p>Consumer - Inhalation; Long term systemic effects: 89 mg/m<sup>3</sup></p> <p>Industry - Dermal; Long term systemic effects: 888 mg/kg/day</p>
<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 140.9 mg/l</li> <li>- Marine water; 140.9 mg/l</li> <li>- Intermittent release; 140.9 mg/l</li> <li>- Sediment (Freshwater); 552 mg/kg</li> <li>- Sediment (Marinewater); 552 mg/kg</li> <li>- STP; 2251 mg/l</li> <li>- Soil; 28 mg/kg</li> </ul>

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

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<b>Hygiene measures</b>	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	Yellowish.
<b>Odour</b>	Pleasant, agreeable.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): ~ 11.4
<b>Melting point</b>	~ 0°C
<b>Initial boiling point and range</b>	~ 102°C @
<b>Flash point</b>	°C Does not flash. Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	Not applicable.
<b>Relative density</b>	~ 1.010 @ (20°C)°C
<b>Solubility(ies)</b>	Miscible with water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not applicable.
<b>Viscosity</b>	~ 1 cSt @ (20°C)°C
<b>Oxidising properties</b>	Not applicable.
<b>Comments</b>	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

#### 9.2. Other information

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**Volatile organic compound** This product contains a maximum VOC content of 0 g/litre.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** No potentially hazardous reactions known.

#### 10.4. Conditions to avoid

**Conditions to avoid** There are no known conditions that are likely to result in a hazardous situation.

#### 10.5. Incompatible materials

**Materials to avoid** Acid anhydrides. Acids. Phenols, cresols.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

**Human skin model test** Scientifically unjustified.

**Extreme pH** Moderate pH (> 2 and < 11.5).

##### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

##### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

##### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

##### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.



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<b>IARC carcinogenicity</b>	Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Prolonged inhalation of high concentrations may damage respiratory system.
<b>Ingestion</b>	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
<b>Skin contact</b>	Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Route of entry</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	No specific target organs known.
<b>Medical symptoms</b>	No specific symptoms noted, but this chemical may still have adverse health impact, either in general or on certain individuals.

### Toxicological information on ingredients.

#### DIDECYLDIMETHYLAMMONIUM CHLORIDE

##### Acute toxicity - oral

ATE oral (mg/kg) 500.0

#### PROPAN-2-OL

**Other health effects** There is no evidence that the product can cause cancer.

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 5,840.0

Species Rat

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 16.4

Species Rabbit

##### Respiratory sensitisation

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<b>Respiratory sensitisation</b>	Not sensitising.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Not sensitising.
<b><u>Carcinogenicity</u></b>	
<b>IARC carcinogenicity</b>	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
<b>Inhalation</b>	Drowsiness, dizziness, disorientation, vertigo.
<b>Ingestion</b>	No specific health hazards known.
<b>Skin contact</b>	No specific health hazards known.
<b>Eye contact</b>	Irritating to eyes.

### 2-AMINOETHANOL

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,089.0

**Species** Rat

**ATE oral (mg/kg)** 1,089.0

#### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,504.0

**Species** Rabbit

**ATE dermal (mg/kg)** 1,100.0

#### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 1,487.0

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 1.5

### SECTION 12: Ecological Information

**Ecotoxicity** The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. The product is not expected to be hazardous to wastewater treatment processes. The product does not contain organically bound halogen. The product does not contain organic complexing agents with a DOC level of degradation of < 80% after 28 days.

#### Ecological information on ingredients.

### PROPAN-2-OL

**Ecotoxicity** The product is not expected to be hazardous to the environment.

### 2-AMINOETHANOL

## Smartsan V

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment. The product does not contain organically bound halogen. The product does not contain organic complexing agents with a DOC level of degradation of < 80% after 28 days.

### 12.1. Toxicity

<b>Toxicity</b>	Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.
<b>Acute toxicity - fish</b>	Not determined.
<b>Acute toxicity - aquatic invertebrates</b>	Not determined.
<b>Acute toxicity - aquatic plants</b>	Not determined.
<b>Acute toxicity - microorganisms</b>	Not determined.
<b>Acute toxicity - terrestrial</b>	Not determined.

### Ecological information on ingredients.

#### DIDECYLDIMETHYLAMMONIUM CHLORIDE

##### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

##### Chronic aquatic toxicity

**M factor (Chronic)** 1

#### PROPAN-2-OL

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: ~ 9640 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, >: > 1000 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: > 1000 mg/l, Scenedesmus subspicatus

**Acute toxicity - microorganisms** EC<sub>50</sub>, >: > 1000 mg/l, Activated sludge

#### 2-AMINOETHANOL

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: ~ 349 mg/l, Freshwater fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: ~ 65 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: ~ 2.5 mg/l, Selenastrum capricornutum

### 12.2. Persistence and degradability

**Persistence and degradability** The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

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**Biological oxygen demand** Not determined.

**Chemical oxygen demand** Not determined.

### Ecological information on ingredients.

#### PROPAN-2-OL

**Persistence and degradability** The product is expected to be biodegradable.

**Biodegradation** Degradation (%)  
- 95: 21 days

**Biological oxygen demand** ~ 1171 g O<sub>2</sub>/g substance

**Chemical oxygen demand** ~ 2294 g O<sub>2</sub>/g substance

#### 2-AMINOETHANOL

**Persistence and degradability** The product is biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### PROPAN-2-OL

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** log Pow: 0.05

#### 2-AMINOETHANOL

**Bioaccumulative potential** The product is not bioaccumulating.

### 12.4. Mobility in soil

**Mobility** The product is water-soluble and may spread in water systems. The product is non-volatile.

### Ecological information on ingredients.

#### PROPAN-2-OL

**Mobility** The product is soluble in water.

**Adsorption/desorption coefficient** Water - Koc: ~ 1.1 @ °C

**Henry's law constant** 0.00000338 atm m<sup>3</sup>/mol @ 25°C

#### 2-AMINOETHANOL

**Mobility** The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

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### Ecological information on ingredients.

#### PROPAN-2-OL

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

#### 2-AMINOETHANOL

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**  
No.

### 14.6. Special precautions for user

Not applicable.

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### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<b>National regulations</b>	Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).
<b>Guidance</b>	Approved Classification and Labelling Guide (Sixth edition) L131.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>General information</b>	Only trained personnel should use this material. This product has been manufactured under ISO 9001 and ISO 14001 Quality and Environmental Management Systems.
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Aquatic Chronic 3 - H412: : Calculation method.
<b>Training advice</b>	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Issued by</b>	Prepared by Autosmart International Ltd, Lynn Lane, Shenstone, Lichfield, Staffordshire, WS14 0DH, Great Britain. www.autosmartinternational.com rbutler@autosmart.co.uk Tel +44 (0)1543 481616
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<b>SDS number</b>	10976

## Smartsan V

<b>SDS status</b>	Approved.
<b>Risk phrases in full</b>	R20/21 Harmful by inhalation and in contact with skin. R22 Harmful if swallowed. R34 Causes burns. R37/38 Irritating to respiratory system and skin. R41 Risk of serious damage to eyes. R43 May cause sensitisation by skin contact. R50 Very toxic to aquatic organisms. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.