



## SAFETY DATA SHEET DWG1 GLASSWASH DETERGENT

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

#### 1.1. Product identifier

Product name DWG1 GLASSWASH DETERGENT

Internal identification C859

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

Identified uses Glass cleaner.

Uses advised against Use only for intended applications.

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

Supplier ARROW SOLUTIONS  
RAWDON ROAD  
MOIRA  
SWADLINCOTE  
DERBYSHIRE  
DE12 6DA  
TEL: +44 (0)1283 221044  
FAX: +44 (0)1283 225731  
sales@arrowchem.com

#### 1.4. Emergency telephone number

Emergency telephone +44 (0) 777 8505 330 (24 hrs). +44 (0) 1865 407333 (24 hrs). MEDICAL AND ENVIRONMENTAL EMERGENCIES ONLY.

### SECTION 2: Hazards identification

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

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

Physical hazards Not Classified

Health hazards Eye Dam. 1 - H318

Environmental hazards Not Classified

#### 2.2. Label elements

##### Pictogram



Signal word Danger

Hazard statements H318 Causes serious eye damage.

## DWG1 GLASSWASH DETERGENT

<b>Precautionary statements</b>	<p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	TETRASODIUM ETHYLENE DIAMINE TETRAACETATE
<b>Detergent labelling</b>	5 - < 15% EDTA and salts thereof

### 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>TETRASODIUM ETHYLENE DIAMINE TETRAACETATE</b>			<b>10-30%</b>
CAS number: 64-02-8	EC number: 200-573-9	REACH registration number: 01-2119486762-27-XXXX	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Dam. 1 - H318 STOT RE 2 - H373			

<b>CITRIC ACID ANHYDROUS</b>			<b>1-5%</b>
CAS number: 77-92-9	EC number: 201-069-1	REACH registration number: 01-21194570026-42-xxxx	
<b>Classification</b> Eye Irrit. 2 - H319			

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>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Wash with plenty of water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Rinse cautiously with water for several minutes. Get medical attention immediately.

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

<b>Ingestion</b>	Gastrointestinal symptoms, including upset stomach.
<b>Skin contact</b>	Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	Causes serious eye damage.

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

## DWG1 GLASSWASH DETERGENT

Notes for the doctor                      Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media**    Use fire-extinguishing media suitable for the surrounding fire.

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

**Hazardous combustion products**                      Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>).

#### 5.3. Advice for firefighters

**Protective actions during firefighting**                      No specific firefighting precautions known.

### SECTION 6: Accidental release measures

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

**Personal precautions**                      Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Do not touch or walk into spilled material. Take care as floors and other surfaces may become slippery. Wash thoroughly after dealing with a spillage. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash thoroughly after dealing with a spillage.

#### 6.2. Environmental precautions

**Environmental precautions**                      Do not discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up**                      Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

#### 6.4. Reference to other sections

**Reference to other sections**                      Wear protective clothing as described in Section 8 of this safety data sheet.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions**                      Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Avoid contact with contaminated tools and objects. Do not reuse empty containers. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

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

**Storage precautions**                      Store at temperatures between 4°C and 40°C.

**Storage class**                      Corrosive 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

## DWG1 GLASSWASH DETERGENT

### 8.1. Control parameters

#### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (CAS: 64-02-8)

##### DNEL

Workers - Inhalation; Long term systemic effects, local effects: 1.5 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term systemic effects, local effects: 3 mg/m<sup>3</sup>  
 Consumer - Inhalation; Long term local effects, systemic effects: 0.6 mg/m<sup>3</sup>  
 Consumer - Inhalation; Short term local effects, systemic effects: 1.2 mg/m<sup>3</sup>  
 Consumer - Oral; Long term systemic effects, local effects: 25 mg/m<sup>3</sup>

##### PNEC

- Fresh water; 2.2 mg/l  
 - Marine water; 0.22 mg/l  
 - Intermittent release; 1.2 mg/l  
 - STP; 43 mg/l  
 - Soil; 0.72 mg/kg

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### 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. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. For exposure up to 4 hours, wear gloves made of the following material: Rubber (natural, latex). Thickness: 0.48 mm Neoprene. Thickness: 0.46 mm Nitrile rubber. Thickness: 0.28 mm 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.

#### Hygiene measures

Wash skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

### SECTION 9: Physical and Chemical Properties

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

Appearance	Clear liquid.
Colour	Light (or pale). Straw.
Odour	Slight.
pH	pH (diluted solution): 8.50
Relative density	1.13 @ 25°C

#### 9.2. Other information

## DWG1 GLASSWASH DETERGENT

Other information Not determined.

### 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.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

#### 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 No specific material or group of materials is likely to react with the product to produce a hazardous situation.

#### 10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>).

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg) 12,714.29

##### Acute toxicity - inhalation

ATE inhalation (gases ppm) 80,357.14

ATE inhalation (vapours mg/l) 196.43

ATE inhalation (dusts/mists mg/l) 26.79

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Prolonged contact may cause redness, irritation and dry skin.

Eye contact Causes serious eye damage.

#### Toxicological information on ingredients.

#### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 1,780.0

Species Rat

ATE oral (mg/kg) 1,780.0

##### Acute toxicity - inhalation

## DWG1 GLASSWASH DETERGENT

### Notes (inhalation LC<sub>50</sub>)

ATE inhalation (gases ppm)	11,250.0
ATE inhalation (vapours mg/l)	27.5
ATE inhalation (dusts/mists mg/l)	3.75

### CITRIC ACID ANHYDROUS

#### Acute toxicity - oral

Acute toxicity oral (LD <sub>50</sub> mg/kg)	5,400.0
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Species	Mouse
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ATE oral (mg/kg)	5,400.0
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#### Acute toxicity - dermal

Acute toxicity dermal (LD <sub>50</sub> mg/kg)	2,001.0
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Species	Rat
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ATE dermal (mg/kg)	2,001.0
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## SECTION 12: Ecological Information

**Ecotoxicity** Not regarded as dangerous for the environment.

### 12.1. Toxicity

#### Acute aquatic toxicity

**Acute toxicity - fish** Not determined.

#### Ecological information on ingredients.

### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: > 100 mg/l, Lepomis macrochirus (Bluegill)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >100 mg/l, Daphnia magna

### CITRIC ACID ANHYDROUS

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 48 hours: 440 mg/l,  
LC<sub>50</sub>, 96 hours: 440 - 706 mg/l, Fish

### 12.2. Persistence and degradability

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

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** The product does not contain any substances expected to be bioaccumulating.

### 12.4. Mobility in soil

## DWG1 GLASSWASH DETERGENT

**Mobility** 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.

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** 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.

## SECTION 14: Transport information

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

### **Special Provisions note**

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

#### **Transport labels**

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

#### 14.6. Special precautions for user

Not applicable.

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

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

## SECTION 15: Regulatory information

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

**National regulations** Control of Substances Hazardous to Health Regulations 2002 (as amended).

## DWG1 GLASSWASH DETERGENT

<b>EU legislation</b>	<p>Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).</p> <p>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).</p> <p>Commission Regulation (EU) No 453/2010 of 20 May 2010.</p> <p>Commission Regulation (EU) No 2015/830 of 28 May 2015.</p>
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<b>Guidance</b>	Workplace Exposure Limits EH40.
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### 15.2. Chemical safety assessment

#### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>GHS: Globally Harmonized System.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>UN: United Nations.</p>
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<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	01/12/2017
<b>Revision</b>	4.1
<b>Supersedes date</b>	16/02/2017
<b>SDS number</b>	27491
<b>Hazard statements in full</b>	<p>H302 Harmful if swallowed.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H373 May cause damage to organs (Respiratory system, lungs) through prolonged or repeated exposure.</p>

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.