SAFETY DATA SHEET
WR1 TOLETTE

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

1.1. Product identifier

Product name WR1 TOLETTE

Internal identification C520

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

Identified uses Descaler. Cleaning agent.

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 Met. Corr. 1 - H290

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36/38.

2.2. Label elements

Pictogram

Signal word Danger

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Hazard statements H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/ doctor.
P501 Dispose of contents/ container in accordance with national regulations.
P280 Wear protective gloves, eye and face protection.

Contains PHOSPHORIC ACID ...%

Detergent labelling 5 - < 15% phosphates, < 5% anionic surfactants, < 5% perfumes

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

PHOSPHORIC ACID ...% **10-30%**

CAS number: 7664-38-2 EC number: 231-633-2 REACH registration number: 01-2119485924-24-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1B - H314 Eye Dam. 1 - H318	C;R34

GLYCERINE **1-5%**

CAS number: 56-81-5 EC number: 200-289-5 REACH registration number: 01-2119471987-18-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

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

General information Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.

Skin contact Rinse with water. Get medical attention if irritation persists after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse. Get medical attention immediately.

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

Inhalation Coughing, chest tightness, feeling of chest pressure.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Causes skin irritation.

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Eye contact Causes serious eye damage.

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

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: Carbon monoxide (CO). Carbon dioxide (CO_2). Sulphurous gases (SO_x). Phosphorus.

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. 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. Absorb spillage to prevent material damage. Absorb spillage with inert, damp, 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 protective gloves. Avoid contact with skin, eyes and clothing. Avoid spilling. Do not eat, drink or smoke when using this product. Do not reuse empty containers. 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 Chemical storage.

7.3. Specific end use(s)

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

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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

PHOSPHORIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³
Short-term exposure limit (15-minute): WEL 2 mg/m³

GLYCERINE

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³
WEL = Workplace Exposure Limit

PHOSPHORIC ACID ...% (CAS: 7664-38-2)

DNEL

Workers - Inhalation; Long term local effects: 2.92 mg/m³
General population - Inhalation; Long term local effects: 0.73 mg/m³

GLYCERINE (CAS: 56-81-5)

DNEL

Workers - Inhalation; Long term local effects: 56 mg/m³
General population - Inhalation; Long term local effects: 33 mg/m³
General population - Oral; Long term systemic effects: 229 mg/kg/day

PNEC

- Fresh water; 0.885 mg/l
- Marine water; 0.0885 mg/l
- Intermittent release; 8.85 mg/l
- STP; 1000 mg/l
- Sediment (Freshwater); 3.3 mg/kg
- Sediment (Marinewater); 0.33 mg/kg
- Soil; 0.141 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.

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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. 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. Protective gloves should have a minimum thickness of 0.12 mm. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. For work of short duration or where a high degree of manual dexterity is needed, use protective gloves made of: Nitrile rubber. Neoprene. Rubber (natural, latex). Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use.
Hygiene measures	Wash hands 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	Viscous liquid.
Colour	Blue.
Odour	Perfume.
pH	pH (concentrated solution): 2.0
Initial boiling point and range	101°C @ 760 mm Hg
Relative density	1.08 @ 25°C
Solubility(ies)	Soluble in water.
Viscosity	2000 cP @ 25°C

9.2. Other information

Other information	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reactions with the following materials may generate heat: Alkalis.

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	Avoid contact with the following materials: Alkalis.

10.5. Incompatible materials

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Materials to avoid Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO_2). Sulphurous gases (SOx). Phosphorus.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin corrosion/irritation

Human skin model test Cell Viability 94% + 96% 1 hour Not corrosive to skin. Read-across data.

Extreme pH ≤ 2 Not corrosive to skin. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Corrosivity to eyes is assumed. Causes serious eye damage.

Inhalation Coughing, chest tightness, feeling of chest pressure.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage.

Toxicological information on ingredients.

PHOSPHORIC ACID ...%

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,600.0
Species	Rat
ATE oral (mg/kg)	2,600.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,740.0
Species	Rabbit
ATE dermal (mg/kg)	2,740.0

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Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,001.0
Species	Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,000.0
Species	Rabbit

SECTION 12: Ecological Information

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Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Ecological information on ingredients.

PHOSPHORIC ACID ...%

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 138 mg/l, Fish

Acute toxicity - microorganisms EC_{50}, : 270 mg/l, Activated sludge

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Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 54000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC_{50}, >: > 10000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC_{50}, 72 hours: > 2900 mg/l, Freshwater algae

Acute toxicity - microorganisms EC_{50}, >: > 1000 mg/l, Activated sludge

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

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.

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

Special Provisions note

14.1. UN number

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UN No. (ADR/RID)	1760
UN No. (IMDG)	1760
UN No. (ICAO)	1760

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE LIQUID, N.O.S. (phosphoric acid)
Proper shipping name (IMDG)	CORROSIVE LIQUID, N.O.S. (phosphoric acid)
Proper shipping name (ICAO)	CORROSIVE LIQUID, N.O.S. (phosphoric acid)

14.3. Transport hazard class(es)

ADR/RID class	8
IMDG class	8
ICAO class/division	8

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Tunnel restriction code	(E)

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended). 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). Commission Regulation (EU) No 453/2010 of 20 May 2010. Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40.

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15.2. Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
EC_{50}: 50% of maximal Effective Concentration.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
vPvB: Very Persistent and Very Bioaccumulative.
UN: United Nations.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

24/04/2017

Revision

3.1

Supersedes date

24/06/2015

SDS number

25813

Risk phrases in full

Not classified.
R34 Causes burns.
R36/38 Irritating to eyes and skin.

Hazard statements in full

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.