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## SAFETY DATA SHEET

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

#### 1.1 Product identifier

- Product Name: Monarch Original
- Product Part Number: W-MONO

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

- Use of the substance/mixture: Machine dishwashing detergent.

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

- Name of Supplier: Chemisphere UK Ltd
- Address of Supplier: Unit 4 Richmond Road  
Trafford Park  
Manchester  
M17 1RE
- Telephone: +44 (0) 161 874 7200
- Responsible Person: Wilfred Worsley
- Email: safetydata@chemisphereuk.co.uk

#### 1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 776 724 8499
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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

- CLP: Skin Corr. 1B

#### 2.2 Label elements



**GHS05**

- Signal Word: Danger
- Hazard statements  
Causes severe skin burns and eye damage.  
Toxic to aquatic life.
- Precautionary statements  
Keep out of reach of children.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Get immediate medical advice/attention.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

## **SECTION 2: Hazards identification (....)**

Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get medical advice/attention if you feel unwell.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

If skin irritation occurs: Get medical advice/attention.

If medical advice is needed, have product container or label at hand.

Contains: Potassium hydroxide

Sodium hypochlorite

- Supplemental Hazard information (EU)  
Contact with acids liberates toxic gas.

### **2.3 Hazards identification**

- Not a PBT according to REACH Annex XIII
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## **SECTION 3: Composition/information on ingredients**

### **3.2 Mixtures**

- Potassium hydroxide  
CAS Number: 1310-58-3  
EC Number: 215-181-3  
Concentration: 1 - 10%  
Categories: Acute Tox. 4, Skin Corr. 1A  
Symbols: GHS05;GHS07  
H Statements: H302;H314
- Sodium metasilicate pentahydrate  
CAS Number: 10213-79-3  
EC Number: 229-912-9  
Concentration: < 5%  
Categories: Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3  
Symbols: GHS05;GHS07  
H Statements: H290;H314;H335
- Tetrapotassium Pyrophosphate TKPP  
CAS Number: 7320-34-5  
EC Number: 230-785-7  
Concentration: 1 - 10%  
Categories: Eye Irrit. 2  
Symbols: GHS07  
H Statements: H319
- Etidronic acid  
CAS Number: 2809-21-4  
EC Number:  
Concentration: < 1%

### **SECTION 3: Composition/information on ingredients (....)**

Categories: Met. Corr. 1, Acute Tox. 4, Eye Dam. 1

Symbols: GHS05

H Statements: H302;H318;H290

- Sodium hypochlorite, solution ... % Cl active

CAS Number: 7681-52-9

EC Number: 231-668-3

Concentration: < 5%

Categories: Skin Corr. 1B; Aquatic Acute 1

Symbols: GHS05,GHS09

H Statements: H314,H400,EUH031

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### **SECTION 4: First aid measures**

#### **4.1 Description of first aid measures**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

- Contact with eyes  
Causes severe burns  
Risk of serious damage to eyes  
May cause permanent damage if eye is not immediately irrigated.
- Ingestion  
Causes severe burns  
Causes damage to the digestive tract if swallowed
- Inhalation  
Corrosive to the respiratory tract.  
Can cause damage to the respiratory system
- Contact with skin  
Corrosive to skin  
Causes severe burns

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

- If medical advice is needed, have product container or label at hand.
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### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

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

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## SECTION 5: Firefighting measures (....)

- May give off noxious and toxic fumes in a fire

### 5.3 Advice for firefighters

- Wear chemical protection suit and breathing apparatus
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## SECTION 6: Accidental release measures

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

- Wear protective clothing as per section 8
- Avoid contact with skin and eyes
- Avoid breathing dust/fume/gas/mist/vapours/spray.

### 6.2 Environmental precautions

- For large spills: Do not allow product to enter drains. For small spills: Flush down the drain with plenty of water.

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

- Absorb spillage in inert material and shovel up

### 6.4 Reference to other sections

- Wear protective clothing as per section 8
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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid contact with skin and eyes
- Do not breathe vapour/fumes
- Do not mix with any other products
- Proper chemicals handling procedures should be adopted
- Handle and open container with care
- Ensure adequate ventilation

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

- Keep locked up and out of reach of children
- Keep only in the original container in a cool, well ventilated place away from acid
- Incompatible with acid
- Protect from sunlight.

### 7.3 Specific end use(s)

- Washing crockery and cutlery in a cabinet dishwashing machine.
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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

- Potassium hydroxide  
WEL: 2 mg/m<sup>3</sup>  
DNEL (Industry; inhalational, long term local effects): 1 mg/m<sup>3</sup>
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**SECTION 8: Exposure controls/personal protection (....)**

- DNEL (Consumer; inhalational, long term local effects): 1 mg/m<sup>3</sup>
- Sodium metasilicate pentahydrate  
DNEL (Industry; dermal, long term local effects): 1.49 mg/kg/day  
DNEL (Industry; inhalational, long term local effects): 6.22 mg/m<sup>3</sup>  
DNEL (oral): 0.74 mg/kg/day
  - Tetrapotassium Pyrophosphate TKPP  
DNEL (oral): > 70 mg/kg  
DNEL (Industry; inhalational, long term systemic effects): 2.79 mg/m<sup>3</sup>  
DNEL (Consumer; inhalational, long term systemic effects): 0.68 mg/m<sup>3</sup>
  - Etidronic acid  
DNEL (oral): 13 mg/kg/day
  - Sodium hypochlorite, solution ... % Cl active  
DNEL (Industry; inhalational, long term local effects): 1.55 mg/m<sup>3</sup>  
DNEL (Consumer; inhalational, short term local effects): 3.1 mg/m<sup>3</sup>  
DNEL (Consumer; inhalational, long term local effects): 1.55 mg/m<sup>3</sup>

**8.2 Exposure controls**

- Wear protective gloves/protective clothing/eye protection/face protection.

**Gloves****Goggles**

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

- Appearance: Liquid, pale yellow
- Odour: Slight smell of chlorine
- pH: >13
- Density: 1.12 g/cm<sup>3</sup> at 20 deg C
- Conductivity: Not available
- Solubility in water: Soluble in water
- Flammability: Not flammable

**9.2 Other information**

- No information available

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

- Reacts with acid

**10.2 Chemical stability**

- Considered stable under normal conditions

## SECTION 10: Stability and reactivity (....)

### 10.3 Possibility of hazardous reactions

- Contact with acid may form toxic gases

### 10.4 Conditions to avoid

- Keep away from heat, light and moisture

### 10.5 Incompatible materials

- Avoid contact with acid
- Avoid contact with aluminium
- Avoid contact with zinc
- Avoid contact with tin

### 10.6 Hazardous decomposition products

- No hazardous decomposition products known
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## SECTION 11: Toxicological information

### 11.1 Contact with eyes

- Causes serious eye damage.

### 11.2 Ingestion

- Causes damage to the digestive tract
- Causes damage to the stomach lining

### 11.3 Inhalation

- Corrosive to the respiratory tract.

### 11.4 Contact with skin

- Causes severe burns

### 11.5 Information on toxicological effects

- Potassium hydroxide  
LD50 (oral, rat): 333 mg/kg
- Tetrapotassium Pyrophosphate TKPP  
LD50 (dermal, rabbit): > 2000 mg/kg  
LD50 (oral, rat): > 2000 mg/kg
- Etidronic acid  
LD50 (dermal, rabbit): 6000 mg/kg  
LD50 (oral, rat): 1.878 mg/kg
- Sodium hypochlorite, solution ... % Cl active  
LD50 (oral, rat): > 1200 mg/kg  
LD50 (dermal) : > 2000 mg/kg  
LC50 (inhalation, rat): 10500 mg/l

## SECTION 12: Ecological information

### 12.1 Toxicity

- Potassium hydroxide  
EC50 (daphnia): 40-240 mg/l (48 hr)  
LC50 (fish): 80 mg/l (96 hr)
- Sodium metasilicate pentahydrate  
EC50 (daphnia): 1700 mg/l (48 hr)  
LC50 (fish): 210 mg/l (96 hr)
- Tetrapotassium Pyrophosphate TKPP  
IC50 (algae): >100 mg/l (72 hr)  
EC50 (daphnia): >100 mg/l (48 hr)  
LC50 (fish): >100 mg/l (96 hr)
- Etidronic acid  
LC50 (fish): 868 mg/l (96 hr)
- Sodium hypochlorite, solution ... % Cl active  
LC50 (fish): 0.06 mg/l (96 hr)

### 12.2 Persistence and degradability

- Not readily biodegradable

### 12.3 Bioaccumulative potential

- No information available

### 12.4 Mobility in soil

- Soluble in water

### 12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII

### 12.6 Other adverse effects

- No information available
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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
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## SECTION 14: Transport information



Corrosive

## SECTION 14: Transport information (....)

### 14.1 UN number

- UN No.: 3266

### 14.2 Proper Shipping Name

- Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide)

### 14.3 Transport hazard class(es)

- Hazard Class: 8

### 14.4 Packing group

- Packing Group: II.

### 14.5 Environmental hazards

- None assigned

### 14.6 Special precautions for user

- Identification Number: 80
- IMDG EmS: F-A, S-B
- Tunnel Code: (E)
- Contains: Potassium hydroxide

### 14.7 Emergency Action Code

- 2R

### 14.8 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not applicable
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## SECTION 15: Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Regulation 1907/2006-2015/830

### 15.2 Chemical safety assessment

- A chemical safety assessment (CSA) for this product has not yet been completed
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## SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- EUH031: Contact with acids liberates toxic gas. H290: May be corrosive to metals. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H400: Very toxic to aquatic life.

**The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.**

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**SECTION 16: Other information (...)**

--- end of safety datasheet ---

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