



**SAFETY DATA SHEET**  
**ACTIV**

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

**1.1. Product identifier**

Product name                    ACTIV  
Product number                DP159E/03  
Internal identification        C993

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

Identified uses                Cleaning agent.

**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

**SECTION 2: Hazards identification**

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

**Classification**

**Physical hazards**  
Met. Corr. 1 - H290  
**Health hazards**  
Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317  
**Environmental hazards**  
Not Classified

**Classification (67/548/EEC or 1999/45/EC)**  
C;R35. R43.

**2.2. Label elements**

**Pictogram**



**Signal word**                    Danger

**Hazard statements**

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H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.

**Precautionary statements**

P260 Do not breathe vapour/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 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.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P501 Dispose of contents/container in accordance with national regulations.

**Contains**

SODIUM HYDROXIDE, 3-LAURAMIDOPROPYL TRIMETHYL AMMONIUM METHYL SULPHATE

**Detergent labelling**

< 5% aliphatic hydrocarbons, < 5% cationic surfactants

**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>SODIUM XYLENE SULPHONATE</b>		<b>5-10%</b>
CAS number: 1300-72-7 EC number: 215-090-9 REACH registration number: 01-2119513350-56-xxxx		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Eye Irrit. 2 - H319	Xi;R36.	
<b>SODIUM HYDROXIDE</b>		<b>1-5%</b>
CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Met. Corr. 1 - H290 Skin Corr. 1A - H314 Eye Dam. 1 - H318	C;R35	
<b>3-LAURAMIDOPROPYL TRIMETHYL AMMONIUM METHYL SULPHATE</b>		<b>1-5%</b>
CAS number: 10595-49-0 EC number: 234-204-8		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Acute Tox. 4 - H302	Xn;R22. Xi;R36. R43.	

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<b>2-(2-BUTOXYETHOXY)ETHANOL</b> <span style="float: right;"><b>1-5%</b></span>	
CAS number: 112-34-5 EC number: 203-961-6 REACH registration number: 01-2119475104-44-xxxx	
<b>Classification</b> Eye Irrit. 2 - H319	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xi;R36
<b>2-BUTOXYETHANOL</b> <span style="float: right;"><b>1-5%</b></span>	
CAS number: 111-76-2 EC number: 203-905-0 REACH registration number: 01-2119475108-36	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R20/21/22 Xi;R36/38
<b>Tetrasodium ethylenediaminetetraacetate</b> <span style="float: right;"><b>&lt;1%</b></span>	
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	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R20/22. Xi;R41.

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

**Composition comments** The data shown are in accordance with the latest EC Directives.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### **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 immediately with plenty of water. Get medical attention immediately.

###### **Eye contact**

Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

###### **General information**

Chemical burns must be treated by a physician.

###### **Inhalation**

Upper respiratory irritation.

###### **Ingestion**

May cause chemical burns in mouth and throat.

###### **Skin contact**

May cause serious chemical burns to the skin.

###### **Eye contact**

Severe irritation, burning and tearing.

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

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### Notes for the doctor

Treat symptomatically.

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## SECTION 5: Firefighting measures

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### 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>). Sulphurous gases (SO<sub>x</sub>).

### 5.3. Advice for firefighters

#### Protective actions during firefighting

No specific firefighting precautions known.

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## SECTION 6: Accidental release measures

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

#### Personal precautions

Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Avoid contact with contaminated tools and objects. 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. Provide adequate ventilation. Do not touch or walk into spilled material. Absorb spillage to prevent material damage. Absorb spillage with inert, damp, non-combustible material. 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.

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## SECTION 7: Handling and storage

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### 7.1. Precautions for safe handling

#### Usage precautions

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not breathe vapour/spray. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Wash hands thoroughly after handling. Do not get in eyes, on skin, or on clothing. Avoid contact with skin, eyes and clothing. May be corrosive to metals. Keep containers upright. Contaminated work clothing should not be allowed out of the workplace.

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

#### Storage precautions

Store at temperatures between 4°C and 40°C. Store locked up.

#### Storage class

Corrosive storage.

### 7.3. Specific end use(s)

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#### 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

##### SODIUM HYDROXIDE

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

##### 2-(2-BUTOXYETHOXY)ETHANOL

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m3  
Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m3

##### 2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m3  
Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m3

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

#### SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL Industry - Inhalation; Long term local effects: 1.0 mg/m3

#### 2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

DNEL Industry - Inhalation; : 101.2 mg/m3  
Industry - Dermal; : 20 mg/kg/day  
Industry - Inhalation; : 67.5 mg/m3  
Consumer - Inhalation; : 34 mg/m3  
Consumer - Dermal; : 10 mg/kg/day  
Consumer - Oral; : 1.25 mg/kg/day

PNEC - Fresh water; 1 mg/l  
- Marine water; 0.1 mg/l  
- Sediment (Freshwater); 4 mg/kg  
- Sediment (Marinewater); 0.4 mg/kg  
- Soil; 0.4 mg/kg  
- STP; 200 mg/l

#### 2-BUTOXYETHANOL (CAS: 111-76-2)

DNEL Industry - Dermal; Short term systemic effects: 89 mg/kg/day  
Industry - Inhalation; Short term systemic effects: 663 mg/m3  
Industry - Dermal; Long term systemic effects: 75 mg/kg/day  
Industry - Inhalation; Long term systemic effects: 98 mg/m3  
Consumer - Dermal; Short term systemic effects: 44.5 mg/kg  
Consumer - Inhalation; Short term systemic effects: 426 mg/m3  
Consumer - Oral; Short term systemic effects: 13.4 mg/m<sup>3</sup>  
Consumer - Dermal; Long term systemic effects: 38 mg/kg  
Consumer - Oral; Long term systemic effects: 3.2 mg/kg  
Consumer - Inhalation; Long term systemic effects: 49 mg/kg  
Consumer - Inhalation; local effects: 123 mg/kg  
Industry - Inhalation; local effects: 246 mg/m<sup>3</sup>

PNEC - Fresh water; 8.8 mg/l  
- Marine water; 0.88 mg/l  
- Sediment (Freshwater); 8.14 mg/kg  
- Soil; 2.8 mg/kg  
- STP; 463 mg/l

**ACTIV****8.2. Exposure controls****Protective equipment****Appropriate engineering controls**

Provide adequate ventilation.

**Eye/face protection**

The following protection should be worn: Chemical splash goggles.

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC).

**Other skin and body protection**

Wear apron or protective clothing in case of contact.

**Hygiene measures**

Wash hands after handling. Wash contaminated clothing before reuse.

**Respiratory protection**

If ventilation is inadequate, suitable respiratory protection must be worn.

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**SECTION 9: Physical and Chemical Properties**

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**9.1. Information on basic physical and chemical properties****Appearance**

Clear to slightly hazy liquid.

**Colour**

Pale straw

**Odour**

Characteristic.

**pH**

pH (concentrated solution): >11.5

**Relative density**

1.06 @ 25°C

**Solubility(ies)**

Soluble in water.

**9.2. Other information****Other information**

Not determined.

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**SECTION 10: Stability and reactivity**

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**10.1. Reactivity**

Reactions with the following materials may generate heat: Acids.

**10.2. Chemical stability****Stability**

Stable at normal ambient temperatures and when used as recommended.

**10.3. Possibility of hazardous reactions**

Not determined.

**10.4. Conditions to avoid**

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Reactions with the following materials may generate heat: Acids.

### 10.5. Incompatible materials

#### **Materials to avoid**

Strong acids.

### 10.6. 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>). Sulphurous gases (SO<sub>x</sub>).

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## **SECTION 11: Toxicological information**

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### 11.1. Information on toxicological effects

#### **Acute toxicity - oral**

##### **ATE oral (mg/kg)**

14,902.82604595

#### **Acute toxicity - dermal**

##### **ATE dermal (mg/kg)**

66491.15510818

#### **Acute toxicity - inhalation**

##### **ATE inhalation (vapours mg/l)**

690.00255301

#### **Skin corrosion/irritation**

##### **Extreme pH**

≥ 11.5 Corrosive to skin.

#### **Serious eye damage/irritation**

Corrosive to skin. Corrosivity to eyes is assumed. No testing is needed.

#### **Inhalation**

Upper respiratory irritation.

#### **Ingestion**

May cause chemical burns in mouth, oesophagus and stomach.

#### **Skin contact**

Causes severe burns.

#### **Eye contact**

Severe irritation, burning and tearing.

#### **Toxicological information on ingredients.**

### **SODIUM XYLENE SULPHONATE**

#### **Acute toxicity - oral**

##### **Acute toxicity oral (LD<sub>50</sub> mg/kg)**

7,200

##### **Species**

Rat

#### **Acute toxicity - dermal**

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

2000

##### **Species**

Rabbit

**ACTIV**  
**SODIUM HYDROXIDE**

**Acute toxicity - oral**

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

2,000

**Species**

Rat

**ATE oral (mg/kg)**

**2-(2-BUTOXYETHOXY)ETHANOL**

**Acute toxicity - oral**

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

5,530.0

**Species**

Mouse

**ATE oral (mg/kg)**

5,530.0

**2-BUTOXYETHANOL**

**Acute toxicity - oral**

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

1,746.0

**Species**

Rat

**ATE oral (mg/kg)**

1,746.0

**Acute toxicity - dermal**

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

1060.0

**Species**

Rabbit

**ATE dermal (mg/kg)**

1060.0

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)**

11.0

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### Tetrasodium ethylenediaminetetraacetate

#### Acute toxicity - oral

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

2,000.0

#### Species

Rat

ATE oral (mg/kg)

2,000.0

#### Acute toxicity - dermal

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

5000

#### Species

Rabbit

#### Acute toxicity - inhalation

Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)

1000.0

#### Species

Rat

ATE inhalation (dusts/mists mg/l)

1.5

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## SECTION 12: Ecological Information

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### Ecotoxicity

Not regarded as dangerous for the environment.

### 12.1. Toxicity

#### Acute toxicity - fish

Not determined.

**ACTIV**

**Ecological information on ingredients.**

**SODIUM HYDROXIDE**

**Acute toxicity - fish**

LC50, 48 hours: ~ 145 mg/l, Poecilia reticulata (Guppy) REACH dossier information.

**Acute toxicity - aquatic invertebrates**

EC50, 48 hours: ~ 76 mg/l, Daphnia magna REACH dossier information.

**2-(2-BUTOXYETHOXY)ETHANOL**

**Acute toxicity - fish**

LC50, 48 hours: 1820 mg/l, Leuciscus idus (Golden orfe)

**Acute toxicity - aquatic invertebrates**

NOEC, 48 hours: >100 mg/l, Daphnia magna

**Acute toxicity - aquatic plants**

NOEC, 96 hours: >100 mg/l, Scenedesmus subspicatus

**2-BUTOXYETHANOL**

**Acute toxicity - fish**

LC50, 96 hours: 820 - 1490 mg/l, Fish

**Acute toxicity - aquatic invertebrates**

EC50, 48 hours: 835 - 1550 mg/l, Daphnia magna

**Acute toxicity - aquatic plants**

IC50, 72 hours: 1840 mg/l, Algae

**Tetrasodium ethylenediaminetetraacetate**

**Acute toxicity - fish**

LC50, 96 hours: > 500 mg/l, Leuciscus idus (Golden orfe) LC50, 96 hours: >100 mg/l, Fish

**12.2. Persistence and degradability**

**Persistence and degradability**

The product is expected to be biodegradable.

**Ecological information on ingredients.**

**2-BUTOXYETHANOL**

**Persistence and degradability**

The product is readily biodegradable.

**12.3. Bioaccumulative potential**

The product is not bioaccumulating.

**Ecological information on ingredients.**

**2-BUTOXYETHANOL**

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

**Tetrasodium ethylenediaminetetraacetate**

The product is not bioaccumulating.

**12.4. Mobility in soil**

**Mobility**

The product is soluble in water.

**12.5. Results of PBT and vPvB assessment**

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

**ACTIV****Ecological information on ingredients.****2-(2-BUTOXYETHOXY)ETHANOL**

This substance is not classified as PBT or vPvB according to current EU criteria.

**2-BUTOXYETHANOL**

This substance is not classified as PBT or vPvB according to current EU criteria.

**12.6. Other adverse effects**

Not determined.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal methods**

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**SECTION 14: Transport information****14.1. UN number**

UN No. (ADR/RID)	1719
UN No. (IMDG)	1719
UN No. (ICAO)	1719

**14.2. UN proper shipping name**

Proper shipping name (ADR/RID)	CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide)
Proper shipping name (IMDG)	CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide)
Proper shipping name (ICAO)	CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide)
Proper shipping name (ADN)	CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide)

**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	II
IMDG packing group	II
ICAO packing group	II

**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 MARPOL73/78 and the IBC Code**

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Not applicable.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations**

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

**EU legislation**

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).

**Guidance**

Workplace Exposure Limits EH40.

**15.2. Chemical safety assessment****SECTION 16: Other information****General information**

Only trained personnel should use this material.

**Revision comments**

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

**Revision date** 11/06/2015

**Revision** 4.0

**Supersedes date** 22/05/2014

**Risk phrases in full**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R22 Harmful if swallowed.

R35 Causes severe burns.

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

**Hazard statements in full**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

**Disclaimer**

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.