

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

### 1.1. Product identifier

Trade name or designation of the mixture	BEECHAMS POWDERS CAPSULES
Registration number	-
Synonyms	R&D CODE A32/12 * ITEM CODE 801J0 * PARACETAMOL 300 MG, CAFFEINE 25 MG AND PHENYLEPHRINE HYDROCHLORIDE 5 MG CAPSULES * PARACETAMOL, CAFFEINE AND PHENYLEPHRINE HYDROCHLORIDE, FORMULATED PRODUCT
Issue date	01-August-2014
Version number	12
Revision date	01-August-2014

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

**Identified uses** Medicinal Product

This safety data sheet is written to provide health, safety and environmental information for people handling this formulated product in the workplace. It is not intended to provide information relevant to medicinal use of the product. In this instance patients should consult prescribing information/package insert/product label or consult their pharmacist or physician. For health and safety information for individual ingredients used during manufacturing, refer to the appropriate safety data sheet for each ingredient.

**Uses advised against** No other uses are advised.

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

GlaxoSmithKline UK  
980 Great West Road  
Brentford, Middlesex TW8 9GS UK  
UK General Information (normal business hours): +44-20-8047-5000  
Email Address: [msds@gsk.com](mailto:msds@gsk.com)  
Website: [www.gsk.com](http://www.gsk.com)

### 1.4. Emergency telephone number

TRANSPORT EMERGENCIES::  
UK In-country toll call: + (44)-870-8200418  
International toll call: +1 703 527 3887  
available 24 hrs/7 days; multi-language response

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

#### Classification according to Regulation (EC) No 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

**Supplemental label information** None.

### 2.3. Other hazards

Caution - Pharmaceutical agent.  
See section 11 for additional information on health hazards.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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PARACETAMOL	< 70	103-90-2 203-157-5	-	-	
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**Classification:** **DSD:** Xn;R22, R52/53  
**CLP:** Acute Tox. 4;H302, Aquatic Chronic 3;H412

CAFFEINE	< 6	58-08-2 200-362-1	-	613-086-00-5	
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**Classification:** **DSD:** Xn;R22  
**CLP:** Acute Tox. 4;H302

PHENYLEPHRINE HYDROCHLORIDE	< 1.5	61-76-7 200-517-3	-	-	
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**Classification:** **DSD:** Repr. Cat. 3;R62-63, T;R24, Xn;R22, Xi;R37, N;R50/53  
**CLP:** Acute Tox. 4;H302, Acute Tox. 3;H311, Acute Tox. 4;H312, STOT SE 3;H335, Repr. 2;H361, Aquatic Acute 1;H400, Aquatic Chronic 1;H410

Silicon dioxide	< 0.25	7631-86-9 231-545-4	-	-	
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**Classification:** **DSD:** -  
**CLP:** -

Other components below reportable levels < 25

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

**Composition comments** The full text for all R- and H-phrases is displayed in section 16.

## SECTION 4: First aid measures

**General information** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. If breathing is difficult, trained personnel should give oxygen. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**Skin contact** Immediately flush skin with plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if symptoms occur.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Ingestion** If swallowed, rinse mouth with water (only if the person is conscious). If ingestion of a large amount does occur, call a poison control centre immediately. Do not induce vomiting without medical advice.

**4.2. Most important symptoms and effects, both acute and delayed** None known.

**4.3. Indication of any immediate medical attention and special treatment needed** No specific antidotes are recommended. Treat according to locally accepted protocols. For additional guidance, refer to the current prescribing information or to the local poison control information centre.

## SECTION 5: Firefighting measures

**General fire hazards** No unusual fire or explosion hazards noted.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** None known.

<b>5.2. Special hazards arising from the substance or mixture</b>	During fire, gases hazardous to health may be formed.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Special fire fighting procedures</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

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

<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.
<b>For emergency responders</b>	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up** Stop the flow of material, if this is without risk. Collect spillage. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent entry into waterways, sewer, basements or confined areas. Prevent product from entering drains. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

**6.4. Reference to other sections** For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
<b>7.3. Specific end use(s)</b>	Medicinal Product

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

<b>GSK</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	
CAFFEINE (CAS 58-08-2)	8 HR TWA	200 mcg/m3	
	OHC	2	
PARACETAMOL (CAS 103-90-2)	8 HR TWA	4000 mcg/m3	
	OHC	1	
PHENYLEPHRINE HYDROCHLORIDE (CAS 61-76-7)	15 MIN STEL	200 mcg/m3	
	8 HR TWA	30 mcg/m3	
Silicon dioxide (CAS 7631-86-9)	OHC	3	
	OHC	1	
<b>UK. EH40 Workplace Exposure Limits (WELs)</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
PARACETAMOL (CAS 103-90-2)	TWA	10 mg/m3	Inhalable dust.
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Inhalable dust.
		2.4 mg/m3	Respirable dust.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>Derived no-effect level (DNEL)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.
<b>8.2. Exposure controls</b>	
<b>Appropriate engineering controls</b>	General ventilation normally adequate. An Exposure Control Approach (ECA) is established for operations involving this material based upon the OEL/Occupational Hazard Category and the outcome of a site- or operation-specific risk assessment.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Follow all local regulations if personal protective equipment (PPE) is used in the workplace.
<b>Eye/face protection</b>	Not normally needed. If contact is likely, safety glasses with side shields are recommended. (eg. EN 166)
<b>Skin protection</b>	
<b>- Hand protection</b>	Not normally needed. For prolonged or repeated skin contact use suitable protective gloves. Select suitable chemical resistant protective gloves (EN 374) with a protective index 6 (>480min permeation time).
<b>- Other</b>	Not normally needed. Wear suitable protective clothing as protection against splashing or contamination. (EN 14605 for splashes, EN ISO 13982 for dust)
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Where breathable aerosols/dust are formed, use suitable combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (eg. EN 14387).
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. For advice on suitable monitoring methods, seek guidance from a qualified environment, health and safety professional.
<b>Environmental exposure controls</b>	
<b>Hazard guidance and control recommendations</b>	Contain spills and prevent releases and observe national regulations on emissions. Environmental manager must be informed of all major releases.

## SECTION 9: Physical and chemical properties

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

#### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Capsule.
<b>Colour</b>	Not available.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.

<b>Solubility (other)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidizing properties</b>	Not available.
<b>9.2. Other information</b>	No relevant additional information available.

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Alkali metals. Peroxides.
<b>10.6. Hazardous decomposition products</b>	None known. Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

<b>Ingestion</b>	Harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Health injuries are not known or expected under normal use.
<b>Eye contact</b>	Health injuries are not known or expected under normal use. Direct contact with eyes may cause temporary irritation.

**Symptoms** None known.

### 11.1. Information on toxicological effects

**Acute toxicity** Harmful if swallowed. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test results
CAFFEINE (CAS 58-08-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	192 mg/kg
<b>Subchronic</b>		
<i>Oral</i>		
NOAEL	Mouse	167 - 179 mg/kg/day Dosed in drinking water - Continuous
	Rat	151 - 174 mg/kg/day Dosed in drinking water - Continuous
PARACETAMOL (CAS 103-90-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	1944 mg/kg
TD	Human	>= 150 mg/kg
<b>Subacute</b>		
<i>Oral</i>		
NOAEL	Rat	12500 ppm, 14 Day dietary, continuous

Components	Species	Test results
<b>Subchronic</b>		
<i>Oral</i>		
NOAEL	Rat	6200 ppm, 13 weeks dietary, continuous
TD	Rat	>= 12500 ppm, 13 weeks dietary, continuous
<i>Other</i>		
LOAEL	Mouse	130 ppm, 61 weeks dietary, continuous
NOAEL	Mouse	3200 ppm, 13 weeks dietary, continuous 0.3 %, 41 weeks dietary, continuous
TD	Mouse	6100 ppm, 13 weeks dietary, continuous 1.25 %, 41 weeks dietary, continuous

PHENYLEPHRINE HYDROCHLORIDE (CAS 61-76-7)

**Acute**

*Oral*

LD50 Rat 350 mg/kg

**Subacute**

*Oral*

NOAEL Mouse 2000 ppm, 14 Day Dietary study, highest dose tested.

Rat 2000 ppm, 14 Day Dietary study, highest dose tested.

**Subchronic**

*Oral*

LD Mouse 5000 - 20000 ppm, 12 weeks dietary study

Rat 5000 - 20000 ppm, 12 weeks dietary study

LOAEL Mouse 1250 ppm, 12 weeks dietary study

Rat 1250 ppm, 12 weeks dietary study

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Health injuries are not known or expected under normal use.

**Irritation Corrosion - Skin**

CAFFEINE

Literature data  
Result: Non-irritant  
Species: Rabbit  
Supplier SDS  
Result: Non-irritant  
Species: Rabbit  
Notes: US Pharmacopeia

PHENYLEPHRINE HYDROCHLORIDE

**Irritation Corrosion - Skin: P.I.I. value**

PARACETAMOL

OECD 404, Literature data  
Result: Slight irritant  
Species: Rabbit

**Serious eye damage/eye irritation** Health injuries are not known or expected under normal use.

**Eye**

PHENYLEPHRINE HYDROCHLORIDE

Clinical use  
Result: Pharmacological, cardiovascular effects.  
Species: Human

CAFFEINE

Literature data  
Result: Not likely to be a severe irritant  
Species: Rabbit

PARACETAMOL

OECD 405  
Result: Slight irritant  
Species: Rabbit

PHENYLEPHRINE HYDROCHLORIDE

Supplier SDS  
Result: Irritant

**Eye / Initial pain reaction score**

PARACETAMOL

Literature data

**Respiratory sensitisation** Not available.

**Skin sensitisation** This product is not expected to cause skin sensitisation.

**Sensitisation**

PHENYLEPHRINE HYDROCHLORIDE

Clinical use - Ophthalmology  
 Result: Low incidence of contact hypersensitivity.  
 Species: Human  
 Literature data  
 Result: negative  
 Species: Mouse

CAFFEINE

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Mutagenicity**

CAFFEINE

25 - 100 mg/kg Chromosomal Aberration Assay In Vivo  
 Result: positive  
 Species: Mouse  
 25 - 100 mg/kg Micronucleus Assay  
 Result: negative  
 Species: Mouse  
 Ames  
 Result: negative

PHENYLEPHRINE HYDROCHLORIDE

Ames  
 Result: negative  
 Notes: NTP Study report - Phenylephrine.

PARACETAMOL

Ames, Literature data  
 Result: negative

CAFFEINE

Chromosomal Aberration Assay In Vitro  
 Result: positive

PHENYLEPHRINE HYDROCHLORIDE

Chromosomal Aberration Assay In Vitro, CHO cells  
 Result: negative  
 Notes: NTP Study report - Phenylephrine.

PARACETAMOL

Chromosomal Aberration Assay In Vitro, Literature data  
 Result: positive  
 HPRT gene mutation in human lymphocytes, Literature data  
 Result: negative

CAFFEINE

In vivo Micronucleus  
 Result: positive

PARACETAMOL

In vivo Micronucleus, Literature data  
 Result: negative  
 Species: Mouse

PHENYLEPHRINE HYDROCHLORIDE

L5178Y mouse lymphoma thymidine kinase locus assay  
 Result: Equivocal  
 Notes: NTP Study report - Phenylephrine.

CAFFEINE

L5178Y mouse lymphoma thymidine kinase locus assay  
 Result: positive

PHENYLEPHRINE HYDROCHLORIDE

sister chromatid exchange  
 Result: positive  
 Notes: NTP Study report - Phenylephrine.

**Carcinogenicity**

Health injuries are not known or expected under normal use.

CAFFEINE

0.1 - 0.2 %, Dosed in drinking water  
 Result: negative  
 Species: Rat

PHENYLEPHRINE HYDROCHLORIDE

Test Duration: 78 weeks  
 133 - 270 mg/kg/day  
 Result: negative  
 Species: Mouse

CAFFEINE

Test Duration: 103 weeks  
 Notes: NTP Report - Tox and carc studies with phenylephrine hydrochloride.

PHENYLEPHRINE HYDROCHLORIDE

200 - 2000 mg/l, Dosed in drinking water  
 Result: negative  
 Species: Rat  
 Test Duration: 2 years

PARACETAMOL

24 - 50 mg/kg/day  
 Result: negative  
 Species: Rat  
 Test Duration: 103 weeks  
 Notes: NTP Report - Tox and carc studies with phenylephrine hydrochloride.  
 Literature data  
 Result: Equivocal. Increase in adenomas at toxic dose.  
 Species: Mouse  
 Literature data  
 Result: Equivocal. Liver and bladder neoplasms at toxic doses.  
 Species: Rat

**Carcinogenicity**

PARACETAMOL

Literature data  
 Result: negative  
 Species: Mouse  
 Literature data  
 Result: negative  
 Species: Rat

**IARC Monographs. Overall Evaluation of Carcinogenicity**

CAFFEINE (CAS 58-08-2)

3 Not classifiable as to carcinogenicity to humans.

PARACETAMOL (CAS 103-90-2)

3 Not classifiable as to carcinogenicity to humans.

SILICON DIOXIDE (CAS 7631-86-9)

3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity**

Contains no ingredient listed as toxic to reproduction

**Reproductivity**

CAFFEINE

100 mg/kg/day Embryofetal Development  
 Result: Maternal toxicity; adverse foetal effects  
 Species: Rat

25 mg/kg Embryofetal Development

Result: No effect

Species: Rat

PARACETAMOL

250 mg/kg/day Embryofetal Development, Literature data

Result: Foetal NOAEL

Species: Rat

CAFFEINE

300 mg/kg/day

Result: testicular toxicity

Species: Rat

Test Duration: 75 Day

PARACETAMOL

387 mg/kg/day Embryofetal Development, Literature data

Result: negative

Species: Mouse

750 mg/kg/day Embryofetal Development, Literature data

Result: decrease in foetal weight, minor skeletal abnormalities.

Species: Rat

CAFFEINE

87.5 mg/kg/day Embryofetal Development

Result: Maternal toxicity; adverse foetal effects

Species: Mouse

PARACETAMOL

&lt;= 1400 mg/kg/day Pre- and Post-natal development, Literature data

Result: reduced weight gain during nursing.

Species: Rat

CAFFEINE

&gt;= 301 mg/day Epidemiology

Result: delayed conception

Species: Human

PHENYLEPHRINE HYDROCHLORIDE

Epidemiology

Result: Equivocal, evidence of malformations, or other adverse foetal effectw from clinical use. Other studies show no such association.

Species: Human

PARACETAMOL

Epidemiology, Literature data

Result: No clear association with therapeutic use.

Species: Human

PHENYLEPHRINE HYDROCHLORIDE

Result: Foetal growth retardation and onset of early delivery at doses equivalent to clinical exposure.

Species: Rabbit

**Specific target organ toxicity - single exposure** Causes damage to organs.

PHENYLEPHRINE HYDROCHLORIDE

Clinical use

Organ: Cardiovascular effects, some marked.

CAFFEINE

Literature data

Organ: Nervous system; Cardiovascular system

PARACETAMOL

Species: Human

Organ: Liver

**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure by ingestion.**Aspiration hazard**

Not likely, due to the form of the product.

**Mixture versus substance information**

No information available.

**Other information**

Caution - Pharmaceutical agent.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product contains a substance which may cause long-term adverse effects in the environment.  
Contains a substance which causes risk of hazardous effects to the environment.

Components		Species	Test results
CAFFEINE (CAS 58-08-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Activated Sludge Respiration	IC50	Residential sludge	> 1000 mg/l, 3 hours Nominal, OECD 209
	NOEC	Residential sludge	1000
Algae	EC50	Green algae ( <i>Scenedesmus subspicatus</i> )	> 100 mg/l, 72 hours Measured, OECD 201
	NOEC	Algae	100 mg/l
Fish	LC50	Fathead minnow (Adult <i>Pimephales promelas</i> )	151 mg/l, 96 hours OECD 203
		Golden ide/orfe (Adult <i>Leuciscus idus</i> )	87 mg/l, 96 hours OECD 203
Microtox	EC50	Microtox	733 mg/l, 5 minutes
PARACETAMOL (CAS 103-90-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae ( <i>Scenedesmus subspicatus</i> )	134 mg/l, 72 hours
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	50 mg/l, 48 hours Static test
Fish	EC50	Fathead minnow (Juvenile <i>Pimephales promelas</i> )	814 mg/l, 96 hours Flow-through test
PHENYLEPHRINE HYDROCHLORIDE (CAS 61-76-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae ( <i>Selenastrum capricornutum</i> )	> 124 mg/l, 72 hours Measured
	NOEC	Algae	31 mg/l, 72 hours
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	0.86 mg/l, 48 hours Measured
	NOEC	<i>Daphnia</i>	0.21 mg/l, 48 hours
Fish	EC50	Rainbow trout (Adult <i>Oncorhynchus mykiss</i> )	> 100 mg/l, 96 hours Measured
	NOEC	Rainbow trout (Adult <i>Oncorhynchus mykiss</i> )	100 mg/l, 96 hours
Silicon dioxide (CAS 7631-86-9)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae ( <i>Selenastrum capricornutum</i> )	440 mg/l, 72 hours
	NOEC	Green algae ( <i>Selenastrum capricornutum</i> )	60 mg/l, 72 hours
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	> 10000 mg/l, 24 hours Static test
Fish	EC50	Common carp (Juvenile <i>Cyprinus carpio</i> )	> 10000 mg/l, 72 hours
		Zebra fish (Adult <i>Brachydanio rerio</i> )	5000 mg/l, 96 hours Static test
Microtox	EC50	Microtox	8700 mg/l, 15 minutes

\* Estimates for product may be based on additional component data not shown.

### 12.2. Persistence and degradability

#### Photolysis

##### Half-life (Photolysis-atmospheric)

CAFFEINE 2.5 Hours Estimated

##### UV/visible spectrum wavelength

CAFFEINE 227 nm

## Biodegradability

### Percent degradation (Aerobic biodegradation-inherent)

PARACETAMOL	99 %, 5 days Modified Zahn-Wellens, Activated sludge
PHENYLEPHRINE HYDROCHLORIDE	81 %, 28 days Modified Zahn-Wellens, DOC removal., Activated sludge
	99 %, 7 days Modified Zahn-Wellens, primary biodegradation, loss of parent., Activated sludge

## 12.3. Bioaccumulative potential

### Partition coefficient

#### n-octanol/water (log Kow)

CAFFEINE	-0.07
	-0.0907
PARACETAMOL	0.36
PHENYLEPHRINE HYDROCHLORIDE	0.49 (Measured).

### Bioconcentration factor (BCF)

CAFFEINE	0.52 - 2.25 Estimated
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## 12.4. Mobility in soil

### Adsorption

#### Soil/sediment sorption - log Koc

CAFFEINE	1.25 - 1.34 Estimated
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### Mobility in general

#### Volatility

##### Henry's law

CAFFEINE	0 atm m <sup>3</sup> /mol Estimated
PARACETAMOL	0 atm m <sup>3</sup> /mol Estimated

**12.5. Results of PBT and vPvB assessment** Not available.

**12.6. Other adverse effects** Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA**

Not listed.

#### **Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### **Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not listed.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding**

Not listed.

#### **Other EU regulations**

**Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances**

Not listed.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

CAFFEINE (CAS 58-08-2)

**Directive 94/33/EC on the protection of young people at work**

Not listed.

#### **Other regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

#### **National regulations**

Follow national regulation for work with chemical agents.

#### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

#### **List of abbreviations**

Not available.

#### **References**

GSK Hazard Determination

#### **Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

#### **Full text of any statements or R-phrases and H-statements under Sections 2 to 15**

R22 Harmful if swallowed.  
R24 Toxic in contact with skin.  
R37 Irritating to respiratory system.  
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.  
R62 Possible risk of impaired fertility.  
R63 Possible risk of harm to the unborn child.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H335 May cause respiratory irritation.

H361 Suspected of damaging fertility or the unborn child.

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.

**Revision information**

Product and Company Identification: Product and Company Identification  
Composition / Information on Ingredients: Undisclosed Ingredient Statement

Physical & Chemical Properties:

Regulatory Information: United States

GHS: Classification

**Training information**

Follow training instructions when handling this material.

**Disclaimer**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.