

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

1.1. Product identifier

| | |
|-------------------------------|--|
| Product form | : Mixture |
| Product name | : SystemSafe KS3 Central Heating CLEANER |
| Type of product | : Solution |
| Product group | : Trade product |
| Other means of identification | : 500ml - Product Code: BPC006 EAN13: 5060134591848 10L - Product Code: BPC008 EAN13: 5060134591862 |

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

Relevant identified uses

| | |
|----------------------------------|---|
| Intended for general public | |
| Main use category | : Professional use, Consumer use |
| Industrial/Professional use spec | : Used in closed systems |
| Use of the substance/mixture | : Cleaning/washing agents and additives |

Uses advised against

| | |
|---------------------|--|
| Restrictions on use | : Not suitable for use in PRIMATIC single feed cylinders |
|---------------------|--|

1.3. Details of the supplier of the safety data sheet

Supplier

Kamco
AL2 2DD St Albans
T 01727 875020
info@kamco.co.uk, www.kamco.co.uk

1.4. Emergency telephone number

| Country/Area | Organisation/Company | Address | Emergency number | Comment |
|----------------|--|-----------------------------------|------------------|-----------------------------------|
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH Birmingham | 0344 892 0111 | Only for healthcare professionals |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|--------------------------------|---|
| Precautionary statements (CLP) | : P102 - Keep out of reach of children. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
| EUH-statements | : EUH210 - Safety data sheet available on request. |

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

| Component | |
|---|-------------------------|
| Substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 | benzotriazole (95-14-7) |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------------|---|-------|---|
| MPG (propane-1,2-diol) | CAS-No.: 57-55-6 EC-No.: 200-338-0 REACH-no: 01-2119456809-23, UK-01-6702687939-4 | 5 – 9 | Not classified |
| benzotriazole | CAS-No.: 95-14-7 EC-No.: 202-394-1 REACH-no: 01-2119979079-20 | < 1.2 | Aquatic Chronic 3, H412 |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : If you feel unwell, seek medical advice. If medical advice is needed, have product container or label at hand. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center or a doctor if you feel unwell. |

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

| | |
|-------------------------------------|--|
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Symptoms/effects after inhalation | : Inhalation may cause irritation (cough, short breathing, difficulty in breathing). |
| Symptoms/effects after skin contact | : Contact during a long period may cause light irritation. |
| Symptoms/effects after eye contact | : May cause eye irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea and vomiting. |

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Cover spill with non combustible material, e.g.: sand/earth.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

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| MPG (propane-1,2-diol) (57-55-6) | |
|---|---|
| United Kingdom - Occupational Exposure Limits | |
| Local name | Propane-1,2-diol |
| WEL TWA (OEL TWA) | 10 mg/m ³ particulates |
| | 474 mg/m ³ total vapour and particulates |
| | 150 ppm total vapour and particulates |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

DNEL and PNEC

| MPG (propane-1,2-diol) (57-55-6) | |
|--|---------------------------|
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, inhalation | 168 mg/m ³ |
| Long-term - local effects, inhalation | 10 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, inhalation | 50 mg/m ³ |
| Long-term - local effects, inhalation | 10 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 260 mg/l |
| PNEC aqua (marine water) | 26 mg/l |
| PNEC aqua (intermittent, freshwater) | 183 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 572 mg/kg dwt |
| PNEC sediment (marine water) | 57.2 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 50 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 20000 mg/l |
| benzotriazole (95-14-7) | |
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, dermal | 0.24 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 4.2 mg/m ³ |
| DNEL/DMEL (General population) | |
| Acute - systemic effects, oral | 0.12 mg/kg bodyweight/day |
| Long-term - systemic effects, oral | 0.12 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 2.1 mg/m ³ |
| Long-term - systemic effects, dermal | 0.12 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.0194 mg/l |
| PNEC aqua (marine water) | 0.0194 mg/l |
| PNEC aqua (intermittent, freshwater) | 0.158 mg/l |

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PNEC (Sediment)

| | |
|------------------------------|------------------|
| PNEC sediment (freshwater) | 0.2204 mg/kg dwt |
| PNEC sediment (marine water) | 0.2204 mg/kg dwt |

PNEC (Soil)

| | |
|-----------|----------------|
| PNEC soil | 0.03 mg/kg dwt |
|-----------|----------------|

PNEC (STP)

| | |
|-----------------------------|----------|
| PNEC sewage treatment plant | 0.1 mg/l |
|-----------------------------|----------|

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses (EN 166). Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves against chemicals (EN 374)

Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---------------------------|------------------|
| Physical state | : Liquid |
| Colour | : amber. |
| Appearance | : Liquid. |
| Odour | : slight. |
| Odour threshold | : Not available |
| Melting point | : Not applicable |
| Freezing point | : Not available |
| Boiling point | : Not available |
| Flammability | : Non flammable. |
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : Not available |
| Auto-ignition temperature | : Not available |

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| | |
|---|---------------------|
| Decomposition temperature | : Not available |
| pH | : 6 – 8 |
| Viscosity, kinematic | : Not available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50°C | : Not available |
| Density | : Not available |
| Relative density | : ≈ 1.04 |
| Relative vapour density at 20°C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| MPG (propane-1,2-diol) (57-55-6) | |
|----------------------------------|---|
| LD50 oral rat | 22000 mg/kg bodyweight Animal: rat |
| LD50 dermal rabbit | > 2000 mg/kg bodyweight Animal: rabbit |
| LC50 Inhalation - Rat | > 44.9 mg/l air Animal: rat, Guideline: other: |
| benzotriazole (95-14-7) | |
| LD50 dermal rabbit | > 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |

| | |
|-------------------------------|-------------------------------|
| Skin corrosion/irritation | : Not classified pH: 6 – 8 |
| Serious eye damage/irritation | : Not classified pH: 6 – 8 |

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| | |
|-----------------------------------|------------------|
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

MPG (propane-1,2-diol) (57-55-6)

| | |
|--|--|
| NOAEL (subchronic, oral, animal/male, 90 days) | 443 mg/kg bodyweight Animal: cat, Animal sex: male |
|--|--|

| | |
|-------------------|------------------|
| Aspiration hazard | : Not classified |
|-------------------|------------------|

11.2. Information on other hazards

Endocrine disrupting properties

Component

| | |
|-------------------------|--|
| benzotriazole (95-14-7) | The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3) |
|-------------------------|--|

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|---|
| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

MPG (propane-1,2-diol) (57-55-6)

| | |
|----------------------|--|
| LC50 - Fish [1] | 51600 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| LC50 - Fish [2] | 51400 mg/l Test organisms (species): Pimephales promelas |
| EC50 72h - Algae [1] | 24200 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 19300 mg/l Test organisms (species): Skeletonema costatum |
| EC50 96h - Algae [1] | 19000 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| EC50 96h - Algae [2] | 19100 mg/l Test organisms (species): Skeletonema costatum |

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| | |
|----------------------|---|
| LC50 - Fish [1] | 55 mg/l Test organisms (species): Cyprinodon variegatus |
| LC50 - Fish [2] | 180 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 137 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 75 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 29 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |

12.2. Persistence and degradability

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| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

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MPG (propane-1,2-diol) (57-55-6)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

benzotriazole (95-14-7)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Component

| | |
|-------------------------|--|
| benzotriazole (95-14-7) | The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3) |
|-------------------------|--|

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|---|
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Product/Packaging disposal recommendations | : Clean with water. |

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---------------|---------------|---------------|---------------|
| 14.1. UN number or ID number | | | | |
| Not applicable | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shipping name | | | | |
| Not applicable | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | | |
| Not applicable | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | | | |
| Not applicable | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | | |
| Not applicable | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | | |

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14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
|-----|---|

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| Abbreviations and acronyms: | |
|-----------------------------|---|
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disruptor |

| Full text of H- and EUH-statements: | |
|-------------------------------------|---|
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH210 | Safety data sheet available on request. |

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Safety Data Sheet (SDS), EU

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