

SAFETY DATA SHEET

KATUN Formula K Hard Surface Cleaner

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name KATUN Formula K Hard Surface Cleaner

Product number 15492, ZP

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier Katun Corporation
10951 Bush Lake Road
Minneapolis
MN U.S.A. 55438-2391
Tel: 952-941-9505
www.katun.com

Emergency telephone number

Emergency telephone IN CASE OF EMERGENCY CALL:
+1 202 464 2554 (USA only) (24hr, Provided by Carechem 24)
+44 1235 239670 (24hr, Provided by Carechem 24)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Precautionary statements P102 Keep out of reach of children.

Other hazards

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

3. Composition/information on ingredients

Mixtures

2-Butoxyethanol

1-5%

CAS number: 111-76-2

Classification

Acute Tox. 4 - H302

Acute Tox. 4 - H312

Acute Tox. 4 - H332

Skin Irrit. 2 - H315

Eye Irrit. 2A - H319

KATUN Formula K Hard Surface Cleaner

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

| | |
|-----------------------------------|---|
| General information | Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. |
| Inhalation | Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. |
| Ingestion | Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. |
| Skin Contact | Rinse with water. |
| Eye contact | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. |

Most important symptoms and effects, both acute and delayed

| | |
|----------------------------|--|
| General information | See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | Prolonged inhalation of high concentrations may damage respiratory system. |
| Ingestion | Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. |
| Skin contact | Prolonged contact may cause dryness of the skin. |
| Eye contact | May cause temporary eye irritation. |

Indication of immediate medical attention and special treatment needed

| | |
|-----------------------------|------------------------|
| Notes for the doctor | Treat symptomatically. |
|-----------------------------|------------------------|

5. Fire-fighting measures

Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

Special hazards arising from the substance or mixture

| | |
|--------------------------------------|--|
| Specific hazards | Containers can burst violently or explode when heated, due to excessive pressure build-up. |
| Hazardous combustion products | Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

Advice for firefighters

KATUN Formula K Hard Surface Cleaner

| | |
|--|---|
| Protective actions during firefighting | Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities. |
| Special protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|---|
| Personal precautions | No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. |
|-----------------------------|---|

Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | Avoid discharge into drains or watercourses or onto the ground. |
|----------------------------------|---|

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for cleaning up | Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13. |
|--------------------------------|--|

| | |
|------------------------------------|---|
| Reference to other sections | For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13. |
|------------------------------------|---|

7. Handling and storage

Precautions for safe handling

| | |
|--------------------------|--|
| Usage precautions | Keep out of the reach of children. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. |
|--------------------------|--|

| | |
|---|---|
| Advice on general occupational hygiene | Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace. |
|---|---|

Conditions for safe storage, including any incompatibilities

KATUN Formula K Hard Surface Cleaner

| | |
|------------------------------------|---|
| Storage precautions | Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent. |
| Storage class | Chemical storage. |
| <u>Specific end uses(s)</u> | |
| Specific end use(s) | The identified uses for this product are detailed in Section 1. |

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

2-Butoxyethanol

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 240 mg/m³

Sk

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 97 mg/m³

A3

Pin-2(3)-ene

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 112 mg/m³

A4, DSens

Citral

Long-term exposure limit (8-hour TWA): ACGIH 5 ppm 32 mg/m³ inhalable fraction and vapor

A4, DSens, Sk

Pin-2(10)-ene

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 112 mg/m³

A4, DSens

2,6-Di-tert-butyl-p-cresol

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³ inhalable fraction and vapor

A4

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

Sk = Danger of cutaneous absorption.

A4 = Not Classifiable as a Human Carcinogen.

DSens = Dermal sensitizer.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

2-Butoxyethanol (CAS: 111-76-2)

**Immediate danger to life
and health** 700 ppm

Exposure controls

Protective equipment



KATUN Formula K Hard Surface Cleaner

| | |
|---|--|
| Appropriate engineering controls | Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure. |
| Eye/face protection | Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. |
| 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 OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. 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. Frequent changes are recommended. |
| Other skin and body protection | Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. |
| Hygiene measures | Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product. |
| Respiratory protection | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. |
| Environmental exposure controls | Keep container tightly sealed when not in use. |

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|--|----------------------------------|
| Appearance | Liquid. |
| Color | Clear. Blue. |
| Odor | Fruity. |
| pH | pH (concentrated solution): 8-11 |
| Melting point | Not available. |
| Initial boiling point and range | Not available. |
| Flash point | Not available. |
| Evaporation rate | Not available. |

KATUN Formula K Hard Surface Cleaner

| | |
|---|---|
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Bulk density | ~1.0 kg/l |
| Solubility(ies) | Miscible with water. |
| Partition coefficient | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition Temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not considered to be explosive. |
| Oxidizing properties | Does not meet the criteria for classification as oxidizing. |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | See the other subsections of this section for further details. |
| Stability | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
| Possibility of hazardous reactions | No potentially hazardous reactions known. |
| Conditions to avoid | There are no known conditions that are likely to result in a hazardous situation. |
| Materials to avoid | No specific material or group of materials is likely to react with the product to produce a hazardous situation. |
| Hazardous decomposition products | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 37,038.61

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 23,334.75

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 233.35

Skin corrosion/irritation

KATUN Formula K Hard Surface Cleaner

| | |
|--|---|
| Animal data | Based on available data the classification criteria are not met. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Based on available data the classification criteria are not met. |
| <u>Respiratory sensitization</u> | |
| Respiratory sensitization | Based on available data the classification criteria are not met. |
| <u>Skin sensitization</u> | |
| Skin sensitization | Based on available data the classification criteria are not met. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Based on available data the classification criteria are not met. |
| <u>Carcinogenicity</u> | |
| Carcinogenicity | Based on available data the classification criteria are not met. |
| IARC carcinogenicity | Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. |
| Reproductive toxicity - development | Based on available data the classification criteria are not met. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | Not classified as a specific target organ toxicant after a single exposure. |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | Not classified as a specific target organ toxicant after repeated exposure. |
| <u>Aspiration hazard</u> | |
| Aspiration hazard | Based on available data the classification criteria are not met. |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | Prolonged inhalation of high concentrations may damage respiratory system. |
| Ingestion | Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. |
| Skin Contact | Prolonged contact may cause dryness of the skin. |
| Eye contact | May cause temporary eye irritation. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |
| Target Organs | No specific target organs known. |
| <u>Toxicological information on ingredients.</u> | |

2-Butoxyethanol

Acute toxicity - oral

Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

KATUN Formula K Hard Surface Cleaner

| | |
|--|--|
| Notes (dermal LD₅₀) | Acute Tox. 4 - H312 Harmful in contact with skin. |
| ATE dermal (mg/kg) | 1,100.0 |
| <u>Acute toxicity - inhalation</u> | |
| Notes (inhalation LC₅₀) | Acute Tox. 4 - H332 Harmful if inhaled. |
| ATE inhalation (vapours mg/l) | 11.0 |
| <u>Skin corrosion/irritation</u> | |
| Animal data | Irritating. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Causes serious eye irritation. |
| <u>Respiratory sensitization</u> | |
| Respiratory sensitization | Based on available data the classification criteria are not met. |
| <u>Skin sensitization</u> | |
| Skin sensitization | Based on available data the classification criteria are not met. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Based on available data the classification criteria are not met. |
| Genotoxicity - in vivo | Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met. |
| <u>Carcinogenicity</u> | |
| Carcinogenicity | Based on available data the classification criteria are not met. |
| IARC carcinogenicity | None of the ingredients are listed or exempt. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. |
| Reproductive toxicity - development | Based on available data the classification criteria are not met. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | Not classified as a specific target organ toxicant after a single exposure. |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | Not classified as a specific target organ toxicant after repeated exposure. |
| <u>Aspiration hazard</u> | |
| Aspiration hazard | Based on available data the classification criteria are not met. |
| <u>General information</u> | |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness. |
| Ingestion | May cause discomfort if swallowed. Stomach pain. Nausea, vomiting. |

KATUN Formula K Hard Surface Cleaner

| | |
|--------------------------|--|
| Skin Contact | Redness. Irritating to skin. |
| Eye contact | Irritating to eyes. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |
| Target Organs | No specific target organs known. |

Tetrapotassium pyrophosphate

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity

None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not relevant. Solid.

KATUN Formula K Hard Surface Cleaner

| | |
|----------------------------|---|
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | No specific symptoms known. |
| Ingestion | No specific symptoms known. |
| Skin Contact | Prolonged contact may cause dryness of the skin. |
| Eye contact | Irritating to eyes. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |
| Target Organs | No specific target organs known. |

1,2-Benzisothiazol-3(2H)-one

Acute toxicity - oral

Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin.

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Eye Dam. 1 - H318 Causes serious eye damage.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization May cause skin sensitization or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

KATUN Formula K Hard Surface Cleaner

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

No specific symptoms known.

Ingestion

May cause sensitization or allergic reactions in sensitive individuals. May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

Skin Contact

May cause skin sensitization or allergic reactions in sensitive individuals. Redness. Irritating to skin.

Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target Organs

No specific target organs known.

Medical considerations

Skin disorders and allergies.

Fatty alcohol ethoxylate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 384.0

Species Guinea pig

Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.

ATE oral (mg/kg) 384.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Eye Dam. 1 - H318 Causes serious eye damage.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

KATUN Formula K Hard Surface Cleaner

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation No specific symptoms known.

Ingestion May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

Skin Contact No specific symptoms known.

Eye contact Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Target Organs No specific target organs known.

12. Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

2-Butoxyethanol

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Tetrapotassium pyrophosphate

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Fatty alcohol ethoxylate

KATUN Formula K Hard Surface Cleaner

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

2-Butoxyethanol

Toxicity Based on available data the classification criteria are not met.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1474 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1550 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 911 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEL, 21 days: >100 mg/l, Brachydanio rerio (Zebra Fish)

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 100 mg/l, Daphnia magna

Tetrapotassium pyrophosphate

Toxicity Based on available data the classification criteria are not met.

1,2-Benzisothiazol-3(2H)-one

Toxicity Aquatic Acute 1 - H400 Very toxic to aquatic life.

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 1.9 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates LC₅₀, 96 hours: 1.9 mg/l, Mysidopsis bahia
EC₅₀, 48 hours: 2.94 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: 0.38 mg/l, Pseudokirchneriella subcapitata

Fatty alcohol ethoxylate

Toxicity Based on available data the classification criteria are not met.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 7.5 mg/l, Lepomis macrochirus (Bluegill)

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

KATUN Formula K Hard Surface Cleaner

2-Butoxyethanol

| | |
|--------------------------------------|--|
| Persistence and degradability | The degradability of the product is not known. |
| Biodegradation | Water - Degradation 90.4%: 28 days |

Tetrapotassium pyrophosphate

| | |
|--------------------------------------|--|
| Persistence and degradability | The degradability of the product is not known. |
|--------------------------------------|--|

1,2-Benzisothiazol-3(2H)-one

| | |
|--------------------------------------|--|
| Persistence and degradability | The degradability of the product is not known. |
|--------------------------------------|--|

Fatty alcohol ethoxylate

| | |
|--------------------------------------|--|
| Persistence and degradability | The degradability of the product is not known. |
|--------------------------------------|--|

Bioaccumulative potential

| | |
|-----------------------------------|---------------------------------------|
| Bio-Accumulative Potential | No data available on bioaccumulation. |
| Partition coefficient | Not available. |

Ecological information on ingredients.

2-Butoxyethanol

| | |
|-----------------------------------|---------------------------------------|
| Bio-Accumulative Potential | No data available on bioaccumulation. |
| Partition coefficient | log Kow: 0.81 |

Tetrapotassium pyrophosphate

| | |
|-----------------------------------|---------------------------------------|
| Bio-Accumulative Potential | No data available on bioaccumulation. |
|-----------------------------------|---------------------------------------|

1,2-Benzisothiazol-3(2H)-one

| | |
|-----------------------------------|---------------------------------------|
| Bio-Accumulative Potential | No data available on bioaccumulation. |
| Partition coefficient | log Pow: 1.19 |

Fatty alcohol ethoxylate

| | |
|-----------------------------------|---------------------------------------|
| Bio-Accumulative Potential | No data available on bioaccumulation. |
|-----------------------------------|---------------------------------------|

Mobility in soil

| | |
|-----------------|--------------------|
| Mobility | No data available. |
|-----------------|--------------------|

Ecological information on ingredients.

2-Butoxyethanol

| | |
|------------------------|--------------------|
| Mobility | No data available. |
| Surface tension | 29.53 mN/m @ 20°C |

KATUN Formula K Hard Surface Cleaner

Tetrapotassium pyrophosphate

Mobility No data available.

1,2-Benzisothiazol-3(2H)-one

Mobility No data available.

Fatty alcohol ethoxylate

Mobility No data available.

Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

2-Butoxyethanol

Other adverse effects None known.

Tetrapotassium pyrophosphate

Other adverse effects None known.

1,2-Benzisothiazol-3(2H)-one

Other adverse effects None known.

Fatty alcohol ethoxylate

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. 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. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

KATUN Formula K Hard Surface Cleaner

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

Transport labels

No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

The following ingredients are listed or exempt:

2-Butoxyethanol

1.0 %

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

KATUN Formula K Hard Surface Cleaner

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed or exempt:

7-Methyl-3-methyleneocta-1,6-diene

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

2-Butoxyethanol

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

2-Butoxyethanol

2,6-Di-tert-butyl-p-cresol

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

2-Butoxyethanol

Octanal

2,6-Di-tert-butyl-p-cresol

Pin-2(3)-ene

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

2-Butoxyethanol

2,6-Di-tert-butyl-p-cresol

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

2-Butoxyethanol

2,6-Di-tert-butyl-p-cresol

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

2-Butoxyethanol

2,6-Di-tert-butyl-p-cresol

Pin-2(3)-ene

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

KATUN Formula K Hard Surface Cleaner

2-Butoxyethanol

2,6-Di-tert-butyl-p-cresol

Pin-2(3)-ene

Inventories

US - TSCA

The following ingredients are listed or exempt:

2-Butoxyethanol

Tetrapotassium pyrophosphate

1,2-Benzisothiazol-3(2H)-one

2-Methyl-2H-isothiazol-3-one

Water

Alcohol C9-11, ethoxylated

Octanal

d-Limonene

Linalyl acetate

p-Menth-1-en-8-ol

Geranyl acetate

Camphene

Geraniol

Pin-2(10)-ene

2,6-Di-tert-butyl-p-cresol

p-Mentha-1,4-diene

7-Methyl-3-methyleneocta-1,6-diene

Caryophyllene

p-Mentha-1,3-diene

Fatty alcohol ethoxylate

Nonanal

Pin-2(3)-ene

Citral

Citronellol

Linalool

2-Methylundecanal

US - TSCA 12(b) Export Notification

The following ingredients are listed or exempt:

2-Methyl-2H-isothiazol-3-one

16. Other information

KATUN Formula K Hard Surface Cleaner

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.

ICAO: Technical instructions for the safe transport of dangerous goods by air.

IMDG: International maritime dangerous goods.

CAS: Chemical abstracts service.

ATE: Acute toxicity estimate.

LC₅₀: Lethal concentration to 50 % of a test population.

LD₅₀: Lethal dose to 50% of a test population (median lethal dose).

EC₅₀: 50% of maximal effective concentration.

PBT: Persistent, bioaccumulative and toxic substance.

vPvB: Very persistent and very bioaccumulative.

Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Issued by

Bethan Massey

Revision date

8/5/2019

Revision

0.1

SDS No.

1030

Hazard statements in full

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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.