

PRODUCT SAFETY DATA SHEET



HEALTH · HYGIENE · HOME

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

CILLIT BANG Power Cleaner Limescale & Shine
Contains Formic Acid, Sulphamic Acid, Alcohol C9 – C11, Ethoxylated

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

General purpose cleaner

1.3. Details of the Supplier of the Safety Data Sheet

The United Kingdom:

RB UK Hygiene Home Commercial Ltd
Wellcroft House
Wellcroft Road
Slough
Berkshire
SL1 4AQ

The Republic Of Ireland:

RB Ireland Hygiene Home Commercial Ltd
7 Riverwalk
Citywest Business Campus Dublin 24
Ireland

1.4 Emergency telephone number

Only available during the following office hours: 09:00 - 17:00 weekdays

UK Contact Telephone: 0845 769 7079

ROI Contact Telephone: 01 661 7318

Contact Email: consumer.relations-ukroi@rb.com

Revision Date:

1 December 2014

Revision

4

Replacing

1545943603 13 Jun 2012

RB Ref No:

1545943604

Revisions: CLP classification added

Additional useful information

Product Format: Plastic bottle fitted with non-removeable trigger spray



UN Transport Code UN: 1760

Class & Packing Group 8 III

Proper Shipping Name Corrosive Liquid, n.o.s. (Sulphamic Acid, Formic Acid)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Met. Corr. 1, H290

Skin Irrit. 2, H315

Eye Dam. 1, H318

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xi; R41, R38

Human health hazards : Risk of serious damage to eyes. Irritating to skin.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May be corrosive to metals.
Causes serious eye damage.
Causes skin irritation.

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves and eye protection. Keep only in original container.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention/advice.

Storage : Store in corrosive resistant container with a resistant inner liner.

Disposal : Not applicable.

Hazard symbol or symbols :



Indication of danger : Irritant

Risk phrases : R41- Risk of serious damage to eyes.
R38- Irritating to skin.

Safety phrases : S2- Keep out of the reach of children.
S24/25- Avoid contact with skin and eyes.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of water.
S35- This material and its container must be disposed of in a safe way.
S39- Wear eye/face protection.
S46- If swallowed, seek medical advice immediately and show this container or label.
S50- Do not mix with chlorine-based bleaching agents
S51- Use only in well-ventilated areas.

Hazardous ingredients (DPD) : Formic acid
Sulphamic acid
Alkyl(C9-11) alcohol ethoxylated



Hazardous ingredients (CLP) : Formic acid.; sulphamidic acid; Alcohols, C9-11, ethoxylated

Supplemental label elements (DPD) : For sensitive skin, the use of gloves is recommended.

Supplemental label elements (CLP) : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

| Product/ingredient name | Identifiers | % | Classification | | Type |
|---------------------------------|--|--------|---|--|---------|
| | | | 67/548/EEC | Regulation (EC) No. 1272/2008 [CLP] | |
| sulphamidic acid | EC: 226-218-8 CAS: 5329-14-6 Index: 016-026-00-0 | 5 - 10 | Xi; R36/38 R52/53 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412 | [1] |
| formic acid | EC: 200-579-1 CAS: 64-18-6 Index: 607-001-00-0 | < 2.5 | C; R35 | Skin Corr. 1A, H314 Eye Dam. 1, H318 | [1] [2] |
| Alcohols, C9-11, ethoxylated | CAS: 68439-46-3 | < 2.5 | Xn; R22 Xi; R41 | Acute Tox. 4, H302 Eye Dam. 1, H318 | [1] |
| Ethanedioic acid, hydrate (1:2) | EC: 205-634-3 CAS: 6153-66-6 Index: 607-006-00-8 | < 2.5 | Xn; R21/22 | Acute Tox. 4, H302 Acute Tox. 4, H312 | [1] |
| | | | See Section 16 for the full text of the R-phrases declared above. | See Section 16 for the full text of the H statements declared above. | |

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorization](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

[Annex XVII - Restrictions](#) : Not applicable.
on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed.
The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

- Recommendations** : Toilet bowl cleaner
Consumer uses
- Industrial sector specific solutions** : Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------|--|
| Europe | |
| formic acid | EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values TWA: 5 ppm 8 hours. TWA: 9 mg/m ³ 8 hours. |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere 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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Manufacturer: Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyeface protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

- Permeation level 6, Penetration level 3 following EN374, taking into consideration the exposure of chemicals given in chapter 3.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
 - Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
 - Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
 - Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | : Liquid. [Clear. Viscous liquid.] |
| Color | : Colorless. |
| Odor | : Citrus |
| Odor threshold | : Not available. |
| pH | : 0.4 to 1.1 [Conc. (% w/w): 100%] [20°C] |
| Melting point/freezing point | : Not available. |
| Initial boiling point and boiling range | : Not available. |
| Flash point | : Closed cup: >83.3°C |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Upper/lower flammability or explosive limits | : Not available. |
| Vapor pressure | : Not available. |
| Vapor density | : Not available. |
| Density | : 1.035 to 1.055 g/cm ³ [20°C] |
| Solubility(ies) | : Easily soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/ water | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Not available. |
| Explosive properties | : Not available. |
| Oxidizing properties | : Not available. |
| Corrosivity Remarks | : May be corrosive to metals. |

9.2 Other information

No additional information.

SECTION 10: STABILITY AND REACTIVITY

| | |
|---|--|
| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| 10.2 Chemical stability | : The product is stable. |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : No specific data. |
| 10.5 Incompatible materials | : Reactive or incompatible with the following materials: metals Do not mix with household chemicals. |
| 10.6 Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Instability Conditions | : Not available. |
| Instability temperature | : Not available. |

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------------------|---------|------------------------|----------|
| sulphamidic acid formic acid | LD50 Oral | Rat | 3160 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 7400 mg/m ³ | 4 hours |
| Alcohols, C9-11, ethoxylated Ethanedioic acid, hydrate (1: 2) | LD50 Oral | Rat | 730 mg/kg | - |
| | LD50 Oral | Rat | 1378 mg/kg | - |
| | LD50 Oral | Rat | 33 mg/kg | - |

Acute toxicity estimates

| Route | ATE value |
|--------|---------------|
| Oral | 26463.4 mg/kg |
| Dermal | 91666.7 mg/kg |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|----------|-------|----------------------------|-------------|
| * Cillit Bang Grime & Lime sulphamidic acid | Eyes - Cornea opacity | In vitro | >3 | - | - |
| | Skin - Irritant | In vitro | - | - | - |
| | Eyes - Moderate irritant | Rabbit | - | 20 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 250 Micrograms | - |
| formic acid | Skin - Mild irritant | Human | - | 120 hours 4 Percent | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 122 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 610 milligrams | - |

- Skin** : Irritating to skin. * Information is based on toxicity test result of a similar product.
- Eyes** : Severely irritating to eyes. * Information is based on toxicity test result of a similar product.

Sensitization

No known effect according to our database.

Mutagenicity

No known effect according to our database.

Carcinogenicity

No known effect according to our database.

Reproductive toxicity

No known effect according to our database.

Teratogenicity

No known effect according to our database.

Specific target organ toxicity (single exposure)

No known effect according to our database.

Specific target organ toxicity (repeated exposure)

No known effect according to our database.

Aspiration hazard

No known effect according to our database.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

- Other information** : Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------------|---|--|----------|
| sulphamic acid formic acid | Acute LC50 14200 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 151200 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| Alcohols, C9-11, ethoxylated | Acute LC50 80000 to 90000 µg/l Marine water | Crustaceans - Carcinus maenas - Adult | 48 hours |
| | Acute EC50 5.36 mg/l Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute EC50 2686 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 8500 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |

12.2 Persistence and degradability

No known effect according to our database.

Conclusion/Summary : The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|------------------------------|--------------------|-----|-----------|
| sulphamic acid | 0.101 | - | low |
| formic acid | -2.3 | - | low |
| Alcohols, C9-11, ethoxylated | - | 237 | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

| Waste code | Waste designation |
|------------|--|
| 20 01 29* | detergents containing dangerous substances |





Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

For long distance transport of bulk material or shrunk pallet take into consideration sections 7 and 10.

| | ADR/RID | ADN | IMDG | IATA |
|---------------------------------|--|--|--|--|
| 14.1 UN number | UN1760 | UN1760 | UN1760 | UN1760 |
| 14.2 UN proper shipping name | CORROSIVE LIQUID, N.O.S. (sulphamic acid, formic acid) | CORROSIVE LIQUID, N.O.S. (sulphamic acid, formic acid) | CORROSIVE LIQUID, N.O.S. (sulphamic acid, formic acid) | Corrosive liquid, n.o.s. (sulphamic acid, formic acid) |
| 14.3 Transport hazard class(es) | 8  | 8  | 8  | 8  |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No. | No. | No. | No. |
| Additional information | <u>Hazard identification number</u> 80 <u>Limited quantity</u> 5 L <u>Special provisions</u> 274 <u>Tunnel code</u> (E) | <u>Special provisions</u> 274 | <u>Emergency schedules (EmS)</u> F-A, S-B <u>Special provisions</u> 223, 274 | <u>See DG List.</u> |

SECTION 15: REGULATORY INFORMATION

Chemical Safety Assessment following regulation 1907/2006/EC: Not relevant.

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

Annex XVII - Restrictions : Not applicable.

on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles

Integrated pollution : Not listed

prevention and control
list (IPPC) - Air

Integrated pollution : Not listed

prevention and control
list (IPPC) - Water

CMR Substances

None of the components are listed.

Storage code : 8B

Storage code Reference: : TRGS 510 - Storage of hazardous substances in nonstationary containers

Hazard class for water : 1 Appendix No. 4

WGK: Notes : - for bulk material, not applicable for product in domestic pack sizes. Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes (VwVwS)

SECTION 16: OTHER INFORMATION

☑ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Key literature references and sources for data : Not available.

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

Met. Corr. 1, H290

Skin Irrit. 2, H315

Eye Dam. 1, H318

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|---------------------|-----------------------|
| Met. Corr. 1, H290 | Expert judgment |
| Skin Irrit. 2, H315 | On basis of test data |
| Eye Dam. 1, H318 | On basis of test data |

Europe

Full text of abbreviated H statements : H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] : Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Met. Corr. 1, H290 CORROSIVE TO METALS - Category 1
 Skin Corr. 1A, H314 SKIN CORROSION/IRRITATION - Category 1A
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

Full text of abbreviated R phrases : R22- Harmful if swallowed.
 R21/22- Harmful in contact with skin and if swallowed.
 R35- Causes severe burns.
 R41- Risk of serious damage to eyes.
 R38- Irritating to skin.
 R36/38- Irritating to eyes and skin.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : C - Corrosive
 Xn - Harmful
 Xi - Irritant



This document complements the technical usage instructions but does not replace them. The information contained herein is based on our best current knowledge of the product concerned, and is given in good faith. The attention of recipients is drawn to (amongst other things) the element of risk consequent to use of the product other than that for which it was intended.

In no way does this document remove the need of the recipient of the product to fully understand and apply statutory requirements. It is the recipient's sole responsibility to take due precautions relative to the use made of the product. All information contained herein is only to assist the recipient in fulfilling their statutory duty connected with the use of hazardous materials.

This Document may be entitled Product Safety Data Sheet as required by REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Annex II OR Product Data Information Sheet where a product is not required to be supported by a full REACH compliant SDS (e.g. not classified as hazardous or out of scope, such as cosmetics). Changes from the previous version are given in Section 1.

This list of information must not be considered as exhaustive, and does not exonerate the recipient from taking other precautions described in documents other than those mentioned, concerning the storage and use of the product, for which they remain the sole person responsible.