

BAYTOWN SDS SHEETS INDEX

A.

B.

C.

CLR (Calcium, Lime & Rust)

D.

E.

F.

Formula 409 Antibacterial all-purpose cleaner
Formula 409 cleaner degreaser Disinfectant

G.

Germicidal Bowl Cleanse
Goo Gone Pro-Power Goo and Adhesive Remover

H.

I.

J.

K.

Krud Kut Multi-purpose Powers Washer Concentrate

L.

M.

Mold Armor E-Z House Wash

N.

O.

Ortho Home Defense max Insect Killer

P.

Q.

R.

S.

Signet Glass & Multi-Surface Cleaner
Signet Heavy Duty Non-Acid Washroom Cleaner/Disinfectant

T.

U.

V.

W.

Y.

Z.

SAFETY DATA SHEET

ZepInc

"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : "CALCIUM, LIME & RUST CLR "

Material number : CACAL32

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers

For SDS Information : Compliance Services 1-877-428-9937

For a Medical Emergency : 877-541-2016 Toll Free - All Calls Recorded

**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	light yellow
Odour	pungent

GHS Classification

Skin corrosion : Category 1A

Serious eye damage : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:

"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 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.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

Dispose of contents/container in accordance with local regulation.

Potential Health Effects**Carcinogenicity:****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
urea hydrochloride	506-89-8	>= 5 - < 10
sulphamidic acid	5329-14-6	>= 1 - < 5
Alcohols, C10-14, ethoxylated	66455-15-0	>= 1 - < 5
2-HYDROXYETHANOIC ACID	79-14-1	>= 1 - < 5
citric acid	77-92-9	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

- | | |
|-------------------------|--|
| If inhaled | : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
Move to fresh air.
Oxygen or artificial respiration if needed. |
| In case of skin contact | : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.
If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
Thoroughly clean shoes before reuse. |
| In case of eye contact | : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 15 minutes. |
| If swallowed | : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If conscious, drink plenty of water.
Take victim immediately to hospital. |

SECTION 5. FIREFIGHTING MEASURES

- | | |
|--------------------------------------|---|
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during firefighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : Chlorine compounds
Carbon dioxide (CO ₂)
Carbon monoxide
Sulphur oxides
Smoke
Nitrogen oxides (NO _x) |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |

SAFETY DATA SHEET

ZepInc

"CALCIUM, LIME & RUST CLR "

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Oxidizing agents. Keep away from metals. Store and keep away from bases and alkalis.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

ZepInc

"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

Hand protection	:	
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Safety goggles Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	light yellow
Odour	:	pungent
Odour Threshold	:	No data available
pH	:	< 1
Melting point/freezing point	:	Not applicable
Boiling point	:	100 °C
Flash point	:	does not flash
Evaporation rate	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	1.067 g/cm ³
Solubility(ies)	:	
Water solubility	:	soluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity	:	
Viscosity, kinematic	:	No data available

SAFETY DATA SHEET

ZepInc

"CALCIUM, LIME & RUST CLR "

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Oxidizing agents Organic materials Metals Bases
Hazardous decomposition products	: Carbon oxides Chlorine Nitrogen oxides (NOx) Sulphur oxides Ammonia gas may be liberated at high temperatures.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 4,624 mg/kg
Method: Calculation method

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

SAFETY DATA SHEET



"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

No data available

- urea hydrochloride:
- sulphamidic acid:
- Alcohols, C10-14, ethoxylated:
- 2-HYDROXYETHANOIC ACID:
- citric acid:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

2-HYDROXYETHANOIC ACID :

Partition coefficient: n-octanol/water : log Pow: -1.11

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SAFETY DATA SHEET



"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (SULFAMIC ACID), 8, II - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (SULFAMIC ACID), 8, II - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (SULFAMIC ACID), 8, II - Limited quantity

Transportation Regulation: TDG (Canada):
UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (SULFAMIC ACID), 8, II - Limited quantity

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
HYDROCHLORIC ACID	7647-01-0	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

SAFETY DATA SHEET



"CALCIUM, LIME & RUST CLR"

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

- TSCA** On TSCA Inventory
- DSL** This product contains one or several components that are not on the Canadian DSL nor NDSL.
- AICS** Not in compliance with the inventory
- NZIoC** Not in compliance with the inventory
- PICCS** Not in compliance with the inventory
- IECSC** Not in compliance with the inventory

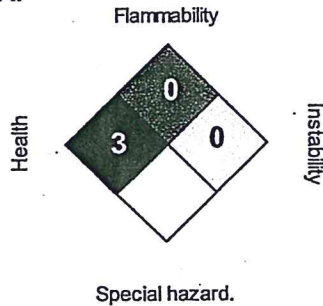
Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

OSHA GHS Label Information:

SAFETY DATA SHEET

Zep Inc

"CALCIUM, LIME & RUST CLR "

Version 1.3

Revision Date 06/23/2015

Print Date 02/29/2016

Hazard pictograms



Signal word
Hazard statements
Precautionary statements

: **Danger:**
: Causes severe skin burns and eye damage.

Prevention: Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Disposal of contents/container in accordance with local regulation.

Version:	1.3
Revision Date:	06/23/2015
Print Date:	02/29/2016

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.

**SAFETY DATA SHEET****Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US
Product number FO00889US

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

Identified uses Cleaning agent.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Cbee Europe Ltd
 Eton House
 2nd Floor
 18-24 Paradise Road
 Richmond
 TW9 1SE, UK
 Tel: +44 (0) 208 614 7120
 Fax: +44 (0) 208 940 2040
 consumerservices@clorox.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0) 208 614 7120
 Monday - Thursday:- 09:00 - 17:30
 Friday:- 09:00 - 17:00

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification****Physical hazards**

Not Classified

Health hazards

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

Environmental hazards

Not Classified

Classification (67/548/EEC or 1999/45/EC)

Xi; R36/38

2.2. Label elements**Pictogram**

Signal word

Warning

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**Hazard statements**

H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash contaminated skin thoroughly after handling.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

Detergent labelling

< 5% perfumes

Supplementary precautionary statements

P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

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

SECTION 3: Composition/Information on Ingredients**3.2. Mixtures**

2-Aminoethanol CAS number: 141-43-5 EC number: 205-483-3	0.25 - <0.5%
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1B - H314 STOT SE 3 - H335	Classification (67/548/EEC or 1999/45/EC) Xn; R20/21/22. C; R34
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS number: 68424-85-1 EC number: 270-325-2 M factor (Acute) = 100	0.025 - <0.25%
Classification Acute Tox. 3 - H301 Acute Tox. 3 - H311 Skin Corr. 1C - H314 Aquatic Acute 1 - H400	Classification (67/548/EEC or 1999/45/EC) T; R24/25. C; R34. N; R50
Ethanol CAS number: 64-17-5 EC number: 200-578-6	0.025 - <0.25%
Classification Flam. Liq. 2 - H225	Classification (67/548/EEC or 1999/45/EC) F; R11

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

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion

Rinse mouth thoroughly with water. Give plenty of water to drink. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin contact

Wash skin thoroughly with soap and water.

Eye contact

Remove any contact lenses and open eyelids wide apart. Continue to rinse.

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

Inhalation

Irritation of nose, throat and airway.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact

Skin irritation.

Eye contact

Irritation of eyes and mucous membranes. Prolonged contact may cause redness and/or tearing.

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

Notes for the doctor

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters

Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with eyes and prolonged skin contact.

6.2. Environmental precautions

Environmental precautions

Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

6.4. Reference to other sections

Reference to other sections

See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations.

Advice on general occupational hygiene

Avoid contact with eyes and prolonged skin contact.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

2-Aminoethanol

Long-term exposure limit (8-hour TWA): WEL 1 ppm 2.5 mg/m³

Short-term exposure limit (15-minute): WEL 3 ppm 7.6 mg/m³

Sk

Ethanol

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

Benzene

Long-term exposure limit (8-hour TWA): WEL 1 ppm 3.25 mg/m³

Carc, Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Carc = Capable of causing cancer and/or heritable genetic damage.

8.2. Exposure controls

Eye/face protection

Wear chemical splash goggles.

Hand protection

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. 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.

Hygiene measures

No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Coloured liquid.

Colour

Green.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**Odour**

Citrus. Floral.

Odour threshold

Not determined.

pH

pH (concentrated solution): 9 - 11.5

Melting point

Not relevant.

Initial boiling point and range

Not determined.

Flash point

> 93°C CC (Closed cup).

Evaporation rate

Not determined.

Evaporation factor

Not determined.

Flammability (solid, gas)

Not relevant.

Upper/lower flammability or explosive limits

Not relevant.

Vapour pressure

Not determined.

Vapour density

Not relevant.

Relative density

Not determined.

Bulk density

Not determined.

Partition coefficient

Not determined.

Auto-ignition temperature

Not relevant.

Decomposition Temperature

Not relevant.

Viscosity

Not determined.

Explosive properties

Not considered to be explosive.

Oxidising properties

The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information**Other information**

No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**10.2. Chemical stability****Stability**

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Will not polymerise.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials**Materials to avoid**

No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

None at ambient temperatures. Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects**Acute toxicity - oral**

Based on available data the classification criteria are not met.

ATE oral (mg/kg)

66,666.66666667

Acute toxicity - dermal

Based on available data the classification criteria are not met.

ATE dermal (mg/kg)

200000.0

Acute toxicity - inhalation

Based on available data the classification criteria are not met.

Skin corrosion/irritation**Animal data**

Dose: 0.5 ml, Rabbit, Skin Irrit. 2 - H315

Serious eye damage/irritation

Eye Irrit. 2 - H319 Dose: 0.1 ml, 1 second, Rabbit

Respiratory sensitisation

Based on available data the classification criteria are not met.

Skin sensitisation

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.

Genotoxicity - in vivo

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity**Reproductive toxicity - fertility**

Based on available data the classification criteria are not met.

Reproductive toxicity - development

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure**STOT - single exposure**

Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure**STOT - repeated exposure**

Based on available data the classification criteria are not met.

Aspiration hazard

Not anticipated to present an aspiration hazard, based on chemical structure.

Toxicological information on ingredients.**2-Aminoethanol****Acute toxicity - oral**

Acute toxicity oral (LD50 mg/kg)

1,515.0

Species

Rat

REACH dossier information.

ATE oral (mg/kg)

1,515.0

Acute toxicity - dermal

Converted acute toxicity point estimate (cATpE)

ATE dermal (mg/kg)

1100

Acute toxicity - inhalation

Converted acute toxicity point estimate (cATpE)

ATE inhalation (vapours mg/l)

11.0

Skin corrosion/irritation

Animal data

Dose: 0.5 ml, 4 hours, Rabbit REACH dossier information. Skin Corr. 1B - H314 Causes severe skin burns and eye damage.

Serious eye damage/irritation

REACH dossier information. Corrosive to skin. Corrosivity to eyes is assumed.

Skin sensitisation

Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro

Chromosome aberration: Negative. REACH dossier information.

Genotoxicity - in vivo

Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility

Two-generation study - NOAEL 300 mg/kg/day, Oral, Rat P REACH dossier information.

Reproductive toxicity - development

Maternal toxicity: - NOAEL: 120 mg/kg/day, Oral, Rat REACH dossier information.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides****Acute toxicity - oral**

ATE oral (mg/kg)

100.0

Acute toxicity - dermal

ATE dermal (mg/kg)

300.0

Ethanol**Acute toxicity - oral**

Acute toxicity oral (LD50 mg/kg)

10,470.0

Species

Rat

REACH dossier information.

ATE oral (mg/kg)

10,470.0

Acute toxicity - Inhalation

Acute toxicity inhalation (LC50 vapours mg/l)

116.9

Species

Rat

REACH dossier information.

ATE inhalation (vapours mg/l)

116.9

Skin corrosion/irritation

Animal data

Dose: 0.2 ml, 24 hours, Rabbit Primary dermal irritation index: 0 REACH dossier information. Not irritating.

Serious eye damage/irritation

Not irritating.

Germ cell mutagenicity

Genotoxicity - in vitro

Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo

Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility

Two-generation study - NOAEL 15 %, Oral, Mouse P Two-generation study - NOAEL 10 %, Oral, Mouse F1 REACH dossier information.

Reproductive toxicity - development

Maternal toxicity: - NOAEL: 16000 ppm, Inhalation, Rat REACH dossier information.

SECTION 12: Ecological Information

12.1. Toxicity

Not considered toxic to fish.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

Ecological information on ingredients.

2-Aminoethanol

Acute toxicity - fish

LC₅₀, 96 hours: 349 mg/l, Cyprinus carpio (Common carp) REACH dossier information.

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 65 mg/l, Daphnia magna REACH dossier information.

Acute toxicity - aquatic plants

NOEC, 72 hours: 1 mg/l, Pseudokirchneriella subcapitata EC₅₀, 72 hours: 2.8 mg/l, Pseudokirchneriella subcapitata REACH dossier information.

Chronic toxicity - fish early life stage

NOEC, 41 days: 1.24 mg/l, Oryzias latipes (Red killifish) REACH dossier information.

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: 0.85 mg/l, Daphnia magna EC₅₀, 21 days: 2.5 mg/l, Daphnia magna REACH dossier information.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute aquatic toxicity

LE(C)₅₀

$0.001 < L(E)C50 \leq 0.01$

M factor (Acute)

100

Ethanol

Acute toxicity - fish

LC₅₀, 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hours: 7960 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.

Acute toxicity - aquatic invertebrates

LC₅₀, 48 hours: 5012 mg/l, Ceriodaphnia REACH dossier information.

Acute toxicity - aquatic plants

EC₅₀, 96 hours: 675 mg/l, Freshwater algae EC₅₀, 72 hours: 275 mg/l, Freshwater algae EC₁₀₀, 72 hours: 14200 mg/l, Freshwater algae REACH dossier information.

Chronic toxicity - aquatic invertebrates

NOEC, 9 days: 9.6 mg/l, Daphnia magna REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability

The surfactant(s) contained in this product 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.

Ecological information on ingredients.

2-Aminoethanol

Biodegradation

Water - Degradation (>90%): 21 days REACH dossier information. The substance is readily biodegradable.

Ethanol

Biodegradation

Water - Degradation (~74%): 5 days Water - Degradation (~95%): 15 days Water - Degradation (~84%): 20 days REACH dossier information. The substance is readily biodegradable.

Chemical oxygen demand

1.99 g O₂/g substance REACH dossier information.

12.3. Bioaccumulative potential

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

No data available on bioaccumulation.

Partition coefficient

Not determined.

Ecological information on ingredients.**2-Aminoethanol****Partition coefficient**

log Pow: -2.3 REACH dossier information.

Ethanol**Partition coefficient**

log Pow: -0.35 REACH dossier information.

12.4. Mobility in soil**Mobility**

The product is soluble in water.

Ecological information on ingredients.**2-Aminoethanol****Henry's law constant**

0.000000118 Pa m³/mol @ 25°C REACH dossier information.

Ethanol**Surface tension**

24.5 mN/m @ 20°C REACH dossier information.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Not relevant.

SECTION 13: Disposal considerations

13.1. Waste treatment methods**General information**

Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

General

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

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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

EH40/2005 Workplace exposure limits.

EU legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information**Classification procedures according to Regulation (EC) 1272/2008**

Eye Irrit. 2 - H319, Skin Irrit. 2 - H315: Calculation method.

Revision comments

Classification according to CLP Annex I.

Revision date 14/05/2014

Revision 2

Supersedes date 01/09/2012

SDS number 157

Risk phrases in full

R11 Highly flammable.

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

R24/25 Toxic in contact with skin and if swallowed.

R34 Causes burns.

R36/38 Irritating to eyes and skin.

R50 Very toxic to aquatic organisms.

Hazard statements in full

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

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.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

Formula 409® Antibacterial All-Purpose Cleaner - Lemon - US**Disclaimer**

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