Safety Data Sheets

SDS library for Test corporation Factory in Miami

Test Corporation Inc.

Dec. 8, 2023

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SAFETY DATA SHEET

Clorox® Cream Cleaner

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 Clorox® Cream Cleaner

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

Identified uses Cleaning and scouring.

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)
C; R35

2.2. Label elements

Pictogram

Signal word Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

P264 Wash contaminated skin thoroughly after handling.

P280 Wear protective gloves.

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.

Supplemental label information

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

Contains Sodium hypochlorite, solution 1.1 % Cl active

Detergent labelling < 5% anionic surfactants, < 5% chlorine-based bleaching agents, < 5% non-ionic surfactants, < 5% perfumes, < 5% soap

Supplementary precautionary statements

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: 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

limestone	**10 - <25%**
CAS number: 1317-65-3 **EC number:** 215-279-6	
Substance with National workplace exposure limits.	
Classification	**Classification (67/548/EEC or 1999/45/EC)**
Not Classified	---

Sulfonic acids, petroleum, sodium salts	**2.5 - <5%**
CAS number: 68608-26-4 **EC number:** 271-781-5	
Classification	**Classification (67/548/EEC or 1999/45/EC)**
Eye Irrit. 2 - H319	Xi; R36

Sodium hypochlorite, solution ... % Cl active	**1 - <2.5%**
CAS number: 7681-52-9 **EC number:** 231-668-3	
M factor (Acute) = 10	
Classification	**Classification (67/548/EEC or 1999/45/EC)**
Skin Corr. 1B - H314	C; R34. N; R50. R31
Eye Dam. 1 - H318	
Aquatic Acute 1 - H400	

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sodium hydroxide **0.5 - <1%**

CAS number: 1310-73-2 **EC number:** 215-185-5

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1A - H314 Eye Dam. 1 - H318	C; R35

Dodecyldimethylamine oxide **0.5 - <1%**

CAS number: 1643-20-5 **EC number:** 216-700-6

M factor (Acute) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400	Xi; R41, R38. N; R50

Hexadecyldimethylamine N-oxide **0.25 - <0.5%**

CAS number: 7128-91-8 **EC number:** 230-429-0

M factor (Acute) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400	Xi; R41, R38. N; R50

N,N-dimethyltetradecylamine N-oxide **0.25 - <0.5%**

CAS number: 3332-27-2 **EC number:** 222-059-3

M factor (Acute) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400	Xn; R22. Xi; R41, R38. N; R50

Crystalline Silica (fine fraction) **0.025 - <0.25%**

CAS number: 14808-60-7 **EC number:** 238-878-4

Classification	Classification (67/548/EEC or 1999/45/EC)
STOT RE 1 - H372	T; R48/23

Amines, C12-16-alkyldimethyl **0.025 - <0.25%**

CAS number: 68439-70-3 **EC number:** 270-414-6

M factor (Acute) = 100 **M factor (Chronic) =** 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Skin Corr. 1B - H314 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Xn; R22. C; R34. N; R50/53

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

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.

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

limestone

Long-term exposure limit (8-hour TWA): WEL 10 mg/m3 inhalable dust
Long-term exposure limit (8-hour TWA): WEL 4 mg/m3 respirable dust

sodium hydroxide

Short-term exposure limit (15-minute): WEL 2 mg/m3

Crystalline Silica (fine fraction)

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ respirable dust

WEL = Workplace Exposure Limit

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

Creamy liquid.

Colour

White.

Odour

Floral. Bleach

Odour threshold

Not determined.

pH

pH (concentrated solution): 12

Melting point

Not relevant.

Initial boiling point and range

Not determined.

Flash point

Not determined.

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

~ 1.05

Bulk density

Not determined.

Partition coefficient

Not determined.

Auto-ignition temperature

Not relevant.

Decomposition Temperature

Not relevant.

Viscosity

~ 14000 cP @ 25°C

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.

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

Avoid contact with the following materials: Acids. Organic nitro compounds. Peroxides.

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)

37,597.17314488

Acute toxicity - dermal

Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data

Skin Irrit. 2 - H315

Serious eye damage/irritation

Eye Irrit. 2 - H319

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

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure

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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.

Sulfonic acids, petroleum, sodium salts

Acute toxicity - oral

> 5000 mg/kg, Rat REACH dossier information.

Acute toxicity - dermal

> 5000 mg/kg, Rabbit, REACH dossier information.

Skin corrosion/irritation

Animal data

Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Oedema score: Very slight oedema - barely perceptible (1). REACH dossier information. Not irritating.

Serious eye damage/irritation

Eye Irrit. 2 - H319 Causes serious eye irritation.

Skin sensitisation

Patch test - Human: Not sensitising. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility

One-generation study - NOAEL > 5000 mg/kg/day, Oral, Rat P, F1 REACH dossier information.

Sodium hypochlorite, solution ... % Cl active

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

8,830.0

Species

Rat

REACH dossier information. Based on available data the classification criteria are not met.

ATE oral (mg/kg)

8,830.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

20000.0

Species

Rabbit

REACH dossier information. Based on available data the classification criteria are not met.

ATE dermal (mg/kg)

20000.0

Acute toxicity - inhalation

Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data

Dose: 5.3%, 4 hours, Rabbit Primary dermal irritation index: 1.2 Dose: 0.5 ml (12.5%), 24 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: Very slight oedema - barely perceptible (1). REACH dossier information.

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Corrosive to skin.

Serious eye damage/irritation

Dose: 0.1 g, 1 second, Rabbit REACH dossier information. Corrosivity to eyes is assumed.

Skin sensitisation

Buehler test - 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.

Carcinogenicity

NOAEL > 13.75 mg/kg/day, Oral, Rat REACH dossier information.

IARC carcinogenicity

IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility

One-generation study - NOAEL > 5 mg/kg/day, Oral, Rat P REACH dossier information.

Reproductive toxicity - development

Teratogenicity: - NOAEL: >=5.7 mg/kg/day, Oral, Rat REACH dossier information.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

LOAEL 100 mg/kg/day, Oral, Rat REACH dossier information.

Aspiration hazard

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

sodium hydroxide

Skin corrosion/irritation

Animal data

Skin Corr. 1A - H314

Serious eye damage/irritation

Dose: 0.1 ml (2%), 1 second, Rabbit REACH dossier information.

Skin sensitisation

Patch test - Human: Not sensitising. REACH dossier information.

Aspiration hazard

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

Dodecyldimethylamine oxide

Skin corrosion/irritation

Animal data

Skin Irrit. 2 - H315

Serious eye damage/irritation

Eye Dam. 1 - H318

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N,N-dimethyltetradecylamine N-oxide

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

1,496.0

Species

Rat

REACH dossier information. Acute Tox. 4 - H302

ATE oral (mg/kg)

1,496.0

Skin corrosion/irritation

Animal data

Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: Moderate to severe erythema (3). Oedema score: Slight oedema - edges of area well defined by definite raising (2). REACH dossier information. Skin Irrit. 2 - H315

Serious eye damage/irritation

Dose: 0.1 ml, 21 days, Rabbit REACH dossier information. Eye Dam. 1 - H318

Skin sensitisation

Buehler test - Guinea pig: Not sensitising. REACH dossier information. Estimated value.

Germ cell mutagenicity

Genotoxicity - in vitro

Gene mutation: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility

Screening - NOAEL 100 mg/kg/day, Oral, Rat P REACH dossier information. Estimated value.

Reproductive toxicity - development

Developmental toxicity: - NOAEL: 25 mg/kg/day, Oral, Rat REACH dossier information. Estimated value.

Aspiration hazard

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

Crystalline Silica (fine fraction)

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

STOT RE 1 - H372

Target organs

Respiratory system, lungs

Amines, C12-16-alkyldimethyl

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

1,000.0

Species

Rat

ATE oral (mg/kg)

1,000.0

SECTION 12: Ecological Information

12.1. Toxicity

Not considered toxic to fish.

Ecological information on ingredients.

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Sulfonic acids, petroleum, sodium salts

Acute toxicity - fish

LL_{50}, 96 hours: > 10000 mg/l, Cyprinodon variegatus (Sheepshead minnow)

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: >1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC_{50}, 72 hours: >1000 mg/l, Selenastrum capricornutum

Sodium hypochlorite, solution ... % Cl active

Acute aquatic toxicity

$LE(C)_{50}$

0.01 < L(E)C50 ≤ 0.1

M factor (Acute)

10

Acute toxicity - fish

LC_{50}, 96 hours: 0.032 mg/l, Oncorhynchus kisutch (Coho salmon) REACH dossier information.

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 0.141 mg/l, Daphnia magna REACH dossier information.

Acute toxicity - microorganisms

EC_{50}, 3 hours: > 3 mg/l, Activated sludge REACH dossier information.

Acute toxicity - terrestrial

NOEC, 10 days: 200 mg/l, Coturnix coturnix japonica (Japanese quail) REACH dossier information.

Chronic toxicity - fish early life stage

NOEC, 28 days: 0.04 mg/l, Menidia peninsulae (Tidewater silverside) REACH dossier information.

Chronic toxicity - aquatic invertebrates

NOEC, 15 days: 0.007 mg/l, Freshwater invertebrates REACH dossier information.

sodium hydroxide

Acute toxicity - fish

LC_{50}, 48 hours: 189 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 40.4 mg/l, Ceriodaphnia REACH dossier information.

Dodecyldimethylamine oxide

Aquatic Acute 1 - H400

Acute aquatic toxicity

$LE(C)_{50}$

0.1 < L(E)C50 ≤ 1

M factor (Acute)

1

Hexadecyldimethylamine N-oxide

Acute aquatic toxicity

$LE(C)_{50}$

0.1 < L(E)C50 ≤ 1

M factor (Acute)

1

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N,N-dimethyltetradecylamine N-oxide

Acute aquatic toxicity

LE(C)$_{50}$

0.1 < L(E)C50 ≤ 1

M factor (Acute)

1

Acute toxicity - fish

LC_{50}, 96 hours: 2.4 mg/l, Brachydanio rerio (Zebra Fish) REACH dossier information.

Acute toxicity - aquatic invertebrates

LC_{50}, 48 hours: 2.64 mg/l, Daphnia magna REACH dossier information.

Acute toxicity - aquatic plants

EC_{50}, 72 hours: 0.81 mg/l, Selenastrum capricornutum REACH dossier information.

Chronic toxicity - fish early life stage

NOEC, 15 days: 0.98 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information. Estimated value.

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: 0.7 mg/l, Daphnia magna REACH dossier information.

Amines, C12-16-alkyldimethyl

Acute aquatic toxicity

LE(C)$_{50}$

0.001 < L(E)C50 ≤ 0.01

M factor (Acute)

100

Chronic aquatic toxicity

NOEC

Degradability

--

M factor (Chronic)

1

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.

Sodium hypochlorite, solution ... % Cl active

Phototransformation

Air - DT_{50} : 114.6 days Estimated value. Water - DT_{50} : 12 minutes REACH dossier information.

Dodecyldimethylamine oxide

Persistence and degradability

The product is readily biodegradable.

N,N-dimethyltetradecylamine N-oxide

Phototransformation

REACH dossier information.

Biodegradation

Water - Degradation (65.5%): 21 days REACH dossier information.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient

Not determined.

Ecological information on ingredients.

Sodium hypochlorite, solution ... % Cl active

Partition coefficient

log Pow: -3.42 Estimated value. REACH dossier information.

sodium hydroxide

The product is not bioaccumulating.

N,N-dimethyltetradecylamine N-oxide

Partition coefficient

log Pow: 2.69 REACH dossier information. Estimated value.

12.4. Mobility in soil

Mobility

The product is soluble in water.

Ecological information on ingredients.

Sodium hypochlorite, solution ... % Cl active

Henry's law constant

0.076 @ 20°C Estimated value. REACH dossier information.

Surface tension

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

N,N-dimethyltetradecylamine N-oxide

Henry's law constant

0 0.000000018 Pa m³/mol @ 25°C Estimated value. REACH dossier information.

Surface tension

32.4 - 32.5 mN/m @ 21°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

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

This is first issue.

Revision date	07/10/2014
SDS number	299

Risk phrases in full

R22 Harmful if swallowed.
R34 Causes burns.
R35 Causes severe burns.
R36 Irritating to eyes.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard statements in full

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H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET

1. Identification

Product identifier **Clorox Disinfecting Bleach**

Other means of identification Document Number: US001229
EPA: 5813-120-AA

Recommended use Disinfectant Bleach

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name The Clorox Company

Address 1221 Broadway
Oakland, CA 94612
United States

Telephone 1-510-271-7000

E-mail Not available.

Emergency phone number Medical Emergency: 1-800-446-1014
Transportation Emergency: 1-800-424-9300 (Chemtrec)

2. Hazards Identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage.

Precautionary statement

Prevention Wash thoroughly after handling. Wear protective gloves and eye protection.

Response IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. 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.

Storage Store away from incompatible materials.

Disposal Dispose of container in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sodium hypochlorite		7681-52-9	5-10*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	If breathed in, move person into fresh air.
Skin contact	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Eye contact	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present, after the first 5 minutes, then, continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion	IF SWALLOWED: Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Probable mucosal damage may contraindicate the use of gastric lavage.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. KEEP OUT OF REACH OF CHILDREN AND PETS. Call a poison control center or doctor immediately for further treatment advice. Have product container or label with you when calling a poison control center or doctor, or going for treatment. Clorox Information Line: 1-800-292-2200.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes and skin. Always dilute strictly in accordance with label directions. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a cool, dry and well-ventilated place. KEEP OUT OF REACH OF CHILDREN AND PETS.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Sodium hypochlorite (CAS 7681-52-9)	STEL	2 mg/m3

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

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields.

Skin protection

Hand protection For prolonged use, wear rubber gloves.

Other Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance Clear

Physical state Liquid.

Form Liquid.

Color Clear to Light yellow

Odor Lemon

Odor threshold Not available.

pH 11.8 - 12.4

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Pour point Not available.

Specific gravity Not available.

Partition coefficient (n-octanol/water) Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 1.1

Solubility(ies) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers. Caustics. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected. Excessive intentional inhalation may cause respiratory tract irritation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage.
Ingestion	May cause stomach distress, nausea or vomiting.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity See below.

Components	**Species**	**Test Results**
Sodium hypochlorite (CAS 7681-52-9)		
Acute		
Dermal		
LD50	Rabbit	> 20000 mg/kg, ECHA
Inhalation		
LC50	Rat	> 10.5 mg/L, 1 Hours, ECHA
Oral		
LD50	Rat	8910 mg/kg, ECHA

Skin corrosion/irritation	Causes skin irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye damage.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	See below.

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium hypochlorite (CAS 7681-52-9) Volume 52 - 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.
Further information	Not available.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Sodium hypochlorite (CAS 7681-52-9)			
Crustacea	EC50	Daphnia	2.1 mg/L, 48 Hours
Aquatic			
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.038 - 0.065 mg/L, 96 hours

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Mobility in general	Not available.
Other adverse effects	Not available.

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

General

Canada:
TDG Proof of Classification:

Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

Not regulated as dangerous goods.

Marine Pollutants Exemption. 1.45.1. : Part 3, Documentation, and Part 4, Dangerous Goods Safety Marks, do not apply to substances that are classified as marine pollutants in accordance with section 2.43 of Part 2, Classification, if they are in transport solely on land by road vehicle or railway vehicle. However, substances may be identified as marine pollutants on a shipping document and the required dangerous goods safety marks may be displayed when they are in transport by road or railway vehicle. (SOR/2008-34, s. 23)

US: DOT: Not regulated per 49 CFR 171.4(c)(1)

IMDG: Not restricted per IMDG Code 2.10.2.7 Marine Pollutant exemption

IATA: Not restricted per IATA Special Provision A197

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

EPA Reg. # 5813-120-AA

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear safety glasses -or- protective eyewear and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet -or- restroom. Avoid breathing vapors and use only in a well ventilated area.

PHYSICAL OR CHEMICAL HAZARDS:

STRONG OXIDIZING AGENT.
Mix only with water according to label directions. Mixing this product with chemicals (e.g., ammonia or acids) or organic matter (e.g., urine or feces) in a manner inconsistent with labeling directions may release hazardous gases irritating to eyes, lungs, and mucous membranes

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hypochlorite (CAS 7681-52-9) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations See below

US - Illinois Chemical Safety Act: Listed substance

Sodium hypochlorite (CAS 7681-52-9)

US - Louisiana Spill Reporting: Listed substance

Sodium hypochlorite (CAS 7681-52-9) Listed.

US - Minnesota Haz Subs: Listed substance

Sodium hypochlorite (CAS 7681-52-9) SODIUM HYPOCHLORITE

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Sodium hypochlorite (CAS 7681-52-9)

US. New Jersey Worker and Community Right-to-Know Act

Sodium hypochlorite (CAS 7681-52-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Sodium hypochlorite (CAS 7681-52-9)

California Proposition 65

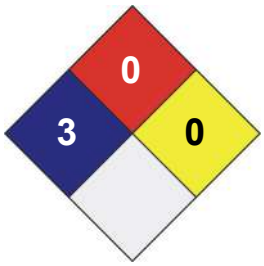
This product is not subject to warning labeling under the California Proposition 65 regulation.

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0



Disclaimer

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Version # 01

Further information Not available.

Other information Item: 01725

Reference Item: 272485.001

Prepared by: The Clorox Company, 164900 Johnson Drive, Pleasanton, CA 94588, 925-368-6000

LIQUID SAFETY SOLUTIONS

BY FYTERTECH NONWOVENS

KOLORSAFE DRY BASE NEUTRALIZER

SAFETY DATA SHEET

ACCORDING TO FEDERAL REGISTER / VOL. 77, NO. 58 / MONDAY, MARCH 26, 2012 / RULES AND REGULATIONS AND ACCORDING TO THE HAZARDOUS PRODUCTS REGULATION (FEBRUARY 11, 2015).

REVISION DATE: 04/06/2021

DATE OF ISSUE: 11/18/2013

SUPERSEDES DATE: 08/13/2020

VERSION: 1.2

SECTION 1: IDENTIFICATION

1.1. PRODUCT IDENTIFIER:

PRODUCT FORM: MIXTURE

PRODUCT NAME: KOLORSAFE DRY BASE NEUTRALIZER

PRODUCT CODE: 4500 SERIES

1.2. INTENDED USE OF THE PRODUCT:

SPILL CLEANUP/ NEUTRALIZE CAUSTIC.

1.3. NAME, ADDRESS, AND TELEPHONE OF THE RESPONSIBLE PARTY:

COMPANY:

FYTERTECH NONWOVENS

2121-B AMERICAN BOULEVARD

DE PERE, WI 54115

800-615-8699

WEB: WWW.LIQUIDSAFETY.COM

EMAIL: CS@FYTERTECH.COM

1.4. EMERGENCY TELEPHONE NUMBER:

EMERGENCY NUMBER:

(800) 424-9300 (USA); +1 (703) 527-3887 (INTERNATIONAL AND MARITIME)

CHEMTREC

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

GHS-US/CA CLASSIFICATION:

EYE IRRIT. 2A: H319

COMB. DUST

FULL TEXT OF HAZARD CLASSES AND H-STATEMENTS: SEE SECTION 16

2.2. LABEL ELEMENTS:

GHS-US/CA LABELING:

HAZARD PICTOGRAMS (GHS-US/CA):

GHS07: EXCLAMATION MARK

SIGNAL WORD (GHS-US/CA): WARNING

HAZARD STATEMENTS (GHS-US/CA):

MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.

H319: CAUSES SERIOUS EYE IRRITATION.

PRECAUTIONARY STATEMENTS (GHS-US/CA):

P264:

WASH HANDS, FOREARMS, AND OTHER EXPOSED AREAS THOROUGHLY AFTER HANDLING.

P280: WEAR PROTECTIVE GLOVES, PROTECTIVE CLOTHING, AND EYE PROTECTION.

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.

2.3. OTHER HAZARDS: NO ADDITIONAL INFORMATION AVAILABLE

2.4. UNKNOWN ACUTE TOXICITY (GHS-US/CA): NO DATA AVAILABLE

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCE: NOT APPLICABLE

3.2. MIXTURE:

NAME PRODUCT IDENTIFIER % * GHS INGREDIENT CLASSIFICATION

CITRIC ACID (CAS-NO.): 77-92-9 99.983 EYE IRRIT. 2A, H319
COMB. DUST

THYMOL BLUE (CAS-NO.): 76-61-9 0.0178 ACUTE TOX. 4 (ORAL), H302

FULL TEXT OF H-PHRASES: SEE SECTION 16

*PERCENTAGES ARE LISTED IN WEIGHT BY WEIGHT PERCENTAGE (W/W%) FOR LIQUID AND SOLID INGREDIENTS. GAS INGREDIENTS ARE LISTED IN VOLUME BY VOLUME

PERCENTAGE (V/V%).

SECTION 4: FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST-AID MEASURES:

GENERAL:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE (SHOW THE LABEL IF POSSIBLE).

INHALATION:

IF INHALED, REMOVE TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE.

SKIN CONTACT:

REMOVE CONTAMINATED CLOTHING. DRENCH AFFECTED AREA WITH WATER FOR AT LEAST 5 MINUTES. OBTAIN MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

EYE CONTACT:

RINSE CAUTIOUSLY WITH WATER FOR AT LEAST 15 MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. OBTAIN MEDICAL ATTENTION.

INGESTION:

RINSE MOUTH. DO NOT INDUCE VOMITING. CALL A POISON CENTER/DOCTOR/PHYSICIAN IF YOU FEEL UNWELL.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED:

GENERAL: CAUSES SERIOUS EYE IRRITATION.

INHALATION:

DUST FROM THIS PRODUCT MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT.

SKIN CONTACT: MAY CAUSE MILD SKIN IRRITATION.

EYE CONTACT: CAUSES SERIOUS EYE IRRITATION.

INGESTION: INGESTION IS LIKELY TO BE HARMFUL OR HAVE ADVERSE EFFECTS.

CHRONIC SYMPTOMS:

REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE DERMATITIS AND DEFATTING.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: IF EXPOSED OR CONCERNED, GET MEDICAL ADVICE AND ATTENTION.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING MEDIA:

DRY CHEMICAL POWDER, ALCOHOL FOAM, CARBON DIOXIDE, WATER SPRAY, FOG.

UNSUITABLE EXTINGUISHING MEDIA:

DO NOT USE A HEAVY WATER STREAM. USE OF HEAVY STREAM OF WATER MAY SPREAD

FIRE.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

FIRE HAZARD: COMBUSTIBLE DUST.

EXPLOSION HAZARD: AVOID DUST CLOUDS IN COMBINATION WITH STATIC ELECTRICITY.

REACTIVITY: DUST CLOUDS CAN BE EXPLOSIVE.

5.3. ADVICE FOR FIREFIGHTERS:

PRECAUTIONARY MEASURES FIRE:

EXERCISE CAUTION WHEN FIGHTING ANY CHEMICAL FIRE.

FIREFIGHTING INSTRUCTIONS:

USE WATER SPRAY OR FOG FOR COOLING EXPOSED CONTAINERS.

PROTECTION DURING FIREFIGHTING:

DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTIVE EQUIPMENT, INCLUDING RESPIRATORY PROTECTION.

HAZARDOUS COMBUSTION PRODUCTS: CARBON OXIDES (CO, CO2).

REFERENCE TO OTHER SECTIONS:

REFER TO SECTION 9 FOR FLAMMABILITY PROPERTIES.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

GENERAL MEASURES:

CONSIDER THE RISK OF POTENTIALLY EXPLOSIVE ATMOSPHERES. AVOID GENERATING DUST. KEEP AWAY FROM OPEN FLAMES, HOT SURFACES AND SOURCES OF IGNITION. NO SMOKING. AVOID ALL CONTACT WITH SKIN, EYES, OR CLOTHING. AVOID BREATHING (DUST, VAPOR, MIST, GAS).

6.1.1. FOR NON-EMERGENCY PERSONNEL:

PROTECTIVE EQUIPMENT: USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE).

EMERGENCY PROCEDURES: EVACUATE UNNECESSARY PERSONNEL.

6.1.2. FOR EMERGENCY PERSONNEL:

PROTECTIVE EQUIPMENT: EQUIP CLEANUP CREW WITH PROPER PROTECTION.

EMERGENCY PROCEDURES:

VENTILATE AREA. ELIMINATE IGNITION SOURCES. STOP LEAK IF SAFE TO DO SO.

6.2. ENVIRONMENTAL PRECAUTIONS:

AVOID RELEASE TO THE ENVIRONMENT.

6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

FOR CONTAINMENT: AVOID GENERATION OF DUST DURING CLEAN-UP OF SPILLS.

METHODS FOR CLEANING UP:

USE ONLY NON-SPARKING TOOLS. CLEAN UP SPILLS IMMEDIATELY AND DISPOSE OF WASTE SAFELY.

6.4. REFERENCE TO OTHER SECTIONS:

SEE SECTION 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

PRECAUTIONS FOR SAFE HANDLING:

GOOD HOUSEKEEPING IS NEEDED DURING STORAGE, TRANSFER, HANDLING, AND USE OF THIS MATERIAL TO AVOID EXCESSIVE DUST ACCUMULATION.

HYGIENE MEASURES:

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PROCEDURES. WASH HANDS AND OTHER EXPOSED AREAS WITH MILD SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING AND AGAIN WHEN LEAVING WORK.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

STORAGE CONDITIONS:

STORE IN A DRY, COOL AND WELL-VENTILATED PLACE. KEEP CONTAINER CLOSED WHEN NOT IN USE.

INCOMPATIBLE MATERIALS: NONE KNOWN.

STORAGE TEMPERATURE: <6S.S DEG. C (150 DEG. F)

7.3. SPECIFIC END USE(S): SPILL CLEANUP/ NEUTRALIZE CAUSTIC.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS:

FOR SUBSTANCES LISTED IN SECTION 3 THAT ARE NOT LISTED HERE, THERE ARE NO ESTABLISHED EXPOSURE LIMITS FROM THE MANUFACTURER, SUPPLIER, IMPORTER, OR THE APPROPRIATE ADVISORY AGENCY INCLUDING: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), OR CANADIAN PROVINCIAL GOVERNMENTS.

8.2. EXPOSURE CONTROLS:

APPROPRIATE ENGINEERING CONTROLS:

ENSURE ADEQUATE VENTILATION, ESPECIALLY IN CONFINED AREAS. AVOID HIGH DUST CONCENTRATION. USE EXPLOSION-PROOF EQUIPMENT. ENSURE ALL NATIONAL/LOCAL REGULATIONS ARE OBSERVED. EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

PERSONAL PROTECTIVE EQUIPMENT:

SAFETY GLASSES. GLOVES. PROTECTIVE CLOTHING.

INSUFFICIENT VENTILATION: WEAR RESPIRATORY PROTECTION.

MATERIALS FOR PROTECTIVE CLOTHING: NOT AVAILABLE

HAND PROTECTION: WEAR CHEMICALLY RESISTANT PROTECTIVE GLOVES.

EYE AND FACE PROTECTION: CHEMICAL GOGGLES OR SAFETY GLASSES.

SKIN AND BODY PROTECTION: WEAR SUITABLE PROTECTIVE CLOTHING.

RESPIRATORY PROTECTION:

USE NIOSH-APPROVED AIR-PURIFYING OR SUPPLIED-AIR RESPIRATOR WHERE AIRBORNE CONCENTRATIONS OF DUST ARE EXPECTED TO EXCEED EXPOSURE LIMITS.

OTHER INFORMATION: WHEN USING, DO NOT EAT, DRINK OR SMOKE.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL STATE: SOLID

APPEARANCE: BLUISH-WHITE CRYSTALLINE POWDER

ODOR: ODORLESS

ODOR THRESHOLD: NOT AVAILABLE

PH: NOT AVAILABLE

EVAPORATION RATE: NOT AVAILABLE

MELTING POINT: NOT AVAILABLE

FREEZING POINT: NOT AVAILABLE

BOILING POINT: NOT AVAILABLE

FLASH POINT: NOT AVAILABLE

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE

DECOMPOSITION TEMPERATURE: NOT AVAILABLE

FLAMMABILITY (SOLID, GAS): NOT AVAILABLE

LOWER FLAMMABLE LIMIT: NOT AVAILABLE

UPPER FLAMMABLE LIMIT: NOT AVAILABLE

VAPOR PRESSURE: NOT AVAILABLE

RELATIVE VAPOR DENSITY AT 20 DEG. C: NOT AVAILABLE

RELATIVE DENSITY: NOT AVAILABLE

SPECIFIC GRAVITY: NOT AVAILABLE

SOLUBILITY: NOT AVAILABLE

PARTITION COEFFICIENT N-OCTANOL/WATER: NOT AVAILABLE

VISCOSITY: NOT AVAILABLE

EXPLOSIVE PROPERTIES: DUST EXPLOSION HAZARD IN AIR

VOC CONTENT: <1 %

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY: DUST CLOUDS CAN BE EXPLOSIVE.

10.2. CHEMICAL STABILITY:

STABLE UNDER RECOMMENDED HANDLING AND STORAGE CONDITIONS (SEE SECTION 7).

10.3. POSSIBILITY OF HAZARDOUS REACTIONS:

HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

10.4. CONDITIONS TO AVOID:

AVOID CREATING OR SPREADING DUST. DIRECT SUNLIGHT. EXTREMELY HIGH OR LOW TEMPERATURES.

10.5. INCOMPATIBLE MATERIALS: NONE KNOWN.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS: CARBON OXIDES (CO, CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS - PRODUCT:

ACUTE TOXICITY (ORAL): NOT CLASSIFIED

ACUTE TOXICITY (DERMAL): NOT CLASSIFIED

ACUTE TOXICITY (INHALATION): NOT CLASSIFIED

LD50 AND LC50 DATA: NOT AVAILABLE

SKIN CORROSION/IRRITATION: NOT CLASSIFIED

EYE DAMAGE/IRRITATION: CAUSES SERIOUS EYE IRRITATION.

RESPIRATORY OR SKIN SENSITIZATION: NOT CLASSIFIED

GERM CELL MUTAGENICITY: NOT CLASSIFIED

CARCINOGENICITY: NOT CLASSIFIED

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): NOT CLASSIFIED

REPRODUCTIVE TOXICITY: NOT CLASSIFIED

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): NOT CLASSIFIED

ASPIRATION HAZARD: NOT CLASSIFIED

SYMPTOMS/INJURIES AFTER INHALATION:

DUST FROM THIS PRODUCT MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT.

SYMPTOMS/INJURIES AFTER SKIN CONTACT: MAY CAUSE MILD SKIN IRRITATION.

SYMPTOMS/INJURIES AFTER EYE CONTACT: CAUSES SERIOUS EYE IRRITATION.

SYMPTOMS/INJURIES AFTER INGESTION:

INGESTION IS LIKELY TO BE HARMFUL OR HAVE ADVERSE EFFECTS.

CHRONIC SYMPTOMS:

REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE DERMATITIS AND DEFATTING.

11.2. INFORMATION ON TOXICOLOGICAL EFFECTS - INGREDIENT(S):

LD50 AND LC50 DATA:

CITRIC ACID (77-92-9):

LD50 ORAL RAT: 5400 MG/KG

LD50 DERMAL RAT: >2000 MG/KG

THYMOL BLUE (76-61-9):

ATE US/CA (ORAL): 500.00 MG/KG BODY WEIGHT

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY: NO ADDITIONAL INFORMATION AVAILABLE

CITRIC ACID (77-92-9):

LC50 FISH 1:

1516 MG/L (EXPOSURE TIME: 96 H - SPECIES: LEPOMIS MACROCHIRUS [STATIC])

12.2. PERSISTENCE AND DEGRADABILITY:

KOLORSAFE DRY BASE NEUTRALIZER:

PERSISTENCE AND DEGRADABILITY: NOT ESTABLISHED.

CITRIC ACID (77-92-9):

PERSISTENCE AND DEGRADABILITY: READILY BIODEGRADABLE IN WATER.

12.3. BIOACCUMULATIVE POTENTIAL:

KOLORSAFE DRY BASE NEUTRALIZER:

BIOACCUMULATIVE POTENTIAL: NOT ESTABLISHED.

CITRIC ACID (77-92-9):

LOG POW: -1.72 (AT 20 DEG. C)

12.4. MOBILITY IN SOIL: NOT AVAILABLE

12.5. OTHER ADVERSE EFFECTS:

OTHER INFORMATION: AVOID RELEASE TO THE ENVIRONMENT.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS:

WASTE DISPOSAL RECOMMENDATIONS:

DISPOSE OF WASTE MATERIAL IN ACCORDANCE WITH ALL LOCAL, REGIONAL, NATIONAL, AND INTERNATIONAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

THE SHIPPING DESCRIPTION(S) STATED HEREIN WERE PREPARED IN ACCORDANCE WITH CERTAIN ASSUMPTIONS AT THE TIME THE SDS WAS AUTHORED, AND CAN VARY BASED ON A NUMBER OF VARIABLES THAT MAY OR MAY NOT HAVE BEEN KNOWN AT THE TIME THE SDS WAS ISSUED.

14.1. IN ACCORDANCE WITH DOT: NOT REGULATED FOR TRANSPORT

14.2. IN ACCORDANCE WITH IMDG: NOT REGULATED FOR TRANSPORT

14.3. IN ACCORDANCE WITH IATA: NOT REGULATED FOR TRANSPORT

14.4. IN ACCORDANCE WITH TDG: NOT REGULATED FOR TRANSPORT

SECTION 15: REGULATORY INFORMATION

15.1. US FEDERAL REGULATIONS:

KOLORSAFE DRY BASE NEUTRALIZER:

SARA SECTION 311/312 HAZARD CLASSES:
IMMEDIATE (ACUTE) HEALTH HAZARD
FIRE HAZARD

CITRIC ACID (77-92-9):

LISTED ON THE UNITED STATES TSCA (TOXIC SUBSTANCES CONTROL ACT) INVENTORY

THYMOL BLUE (76-61-9):

LISTED ON THE UNITED STATES TSCA (TOXIC SUBSTANCES CONTROL ACT) INVENTORY

15.2. US STATE REGULATIONS:

NEITHER THIS PRODUCT NOR ITS CHEMICAL COMPONENTS APPEAR ON ANY US STATE LISTS, OR ITS CHEMICAL COMPONENTS ARE NOT REQUIRED TO BE DISCLOSED.

15.3. CANADIAN REGULATIONS:

CITRIC ACID (77-92-9):

LISTED ON THE CANADIAN DSL (DOMESTIC SUBSTANCES LIST)

THYMOL BLUE (76-61-9):

LISTED ON THE CANADIAN DSL (DOMESTIC SUBSTANCES LIST)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION

OR LAST REVISION

DATE OF PREPARATION OR LATEST REVISION: 04/06/2021

OTHER INFORMATION:

THIS DOCUMENT HAS BEEN PREPARED IN ACCORDANCE WITH THE SDS REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 AND CANADA'S

HAZARDOUS PRODUCTS REGULATIONS (HPR) SOR/2015-17.

GHS FULL TEXT PHRASES:

ACUTE TOX. 4 (ORAL): ACUTE TOXICITY (ORAL) CATEGORY 4

COMB. DUST: COMBUSTIBLE DUST

EYE IRRIT. 2A: SERIOUS EYE DAMAGE/EYE IRRITATION CATEGORY 2A

H302: HARMFUL IF SWALLOWED

H319: CAUSES SERIOUS EYE IRRITATION

THIS INFORMATION IS BASED ON OUR CURRENT KNOWLEDGE AND IS INTENDED TO DESCRIBE THE PRODUCT FOR THE PURPOSES OF HEALTH, SAFETY AND ENVIRONMENTAL REQUIREMENTS ONLY. IT SHOULD NOT THEREFORE BE CONSTRUED AS GUARANTEEING ANY SPECIFIC PROPERTY OF THE PRODUCT.

NA GHS SDS 2015 (CAN, US)

EN (ENGLISH US)

Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance

Safety Data Sheet 50018

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/12/2015 Revision date: 12/19/2017 Supersedes: 07/20/2016 Version: 1.4

SECTION 1: Identification

1.1. Identification

Product form : Mixtures

Product name : Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Test gas/Calibration gas.

1.3. Supplier

Calgaz, division of Airgas USA LLC
821 Chesapeake Drive
Cambridge, 21613 - USA
T 1-410-228-6400 - F 1-410-228-4251
info@Calgaz.com - www.Calgaz.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300
Internationally: 1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Gases under pressure Compressed gas	H280	Contains gas under pressure; may explode if heated

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS04

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated
OSHA-H01 - May displace oxygen and cause rapid suffocation
CGA-HG16 - Extended exposure to gas reduces the ability to smell sulfides.

Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective gloves, protective clothing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P403 - Store in a well-ventilated place.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C/125 °F
CGA-PG05 - Use a back flow preventive device in the piping
CGA-PG06 - Close valve after each use and when empty
CGA-PG10 - Use only with equipment rated for cylinder pressure
CGA-PG14 - Approach suspected leak area with caution
CGA-PG21 - Open valve slowly
CGA-PG29 - Do not depend on odor to detect presence of gas

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Nitrogen	(CAS-No.) 7727-37-9	77.895 - 99.9965	Press. Gas (Comp.), H280
Oxygen	(CAS-No.) 7782-44-7	0.0015 - 19.49	Ox. Gas 1, H270 Press. Gas (Comp.), H280
Methane	(CAS-No.) 74-82-8	0.0005 - 2.5	Flam. Gas 1, H220 Press. Gas (Comp.), H280
Carbon monoxide	(CAS-No.) 630-08-0	0.0005 - 0.09	Flam. Gas 1, H220 Press. Gas (Comp.), H280 Acute Tox. 3 (Inhalation:gas), H331 Repr. 1A, H360 STOT RE 1, H372
Hydrogen Sulfide	(CAS-No.) 7783-06-4	0.001 - 0.025	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 2 (Inhalation:gas), H330 STOT SE 3, H335 Aquatic Acute 1, H400

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Adverse effects not expected from this product.

First-aid measures after eye contact : Adverse effects not expected from this product.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May displace oxygen and cause rapid suffocation.

Symptoms/effects after skin contact : Adverse effects not expected from this product.

Symptoms/effects after eye contact : Adverse effects not expected from this product.

Symptoms/effects after ingestion : Ingestion is not considered a potential route of exposure.

Symptoms/effects upon intravenous administration : Not known.

Chronic symptoms : Adverse effects not expected from this product.

Most important symptoms and effects, both acute and delayed : No effect on living tissue. Refer to section 11.

4.3. Immediate medical attention and special treatment, if necessary

If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Specific hazards arising from the chemical

Fire hazard : The product is not flammable.

Explosion hazard : Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity : None known.

Hazardous combustion products : Carbon monoxide. Sulphur dioxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	:	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	:	Standard protective clothing and equipment (e.g, Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.
Specific methods	:	Exposure to fire may cause containers to rupture/explode. If possible, stop flow of product. Continue water spray from protected position until container stays cool. Move containers away from the fire area if this can be done without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment	:	Wear protective equipment consistent with the site emergency plan.
Emergency procedures	:	Evacuate personnel to a safe area. Close doors and windows of adjacent premises. Keep containers closed. Mark the danger area. Seal off low-lying areas. Keep upwind.

6.1.2. For emergency responders

Protective equipment	:	Standard protective clothing and equipment (e.g, Self Contained Breathing Apparatus) for fire fighters. Equip cleanup crew with proper protection.
Emergency procedures	:	Evacuate and limit access. Ventilate area.

6.2. Environmental precautions

Try to stop release if without risk.

6.3. Methods and material for containment and cleaning up

For containment	:	Try to stop release if without risk.
Methods for cleaning up	:	Dispose of contents/container in accordance with local/regional/national/international regulations.
Methods and material for containment and cleaning up	:	None.

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Pressurized container: Do not pierce or burn, even after use. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty.
Precautions for safe handling	:	Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
Safe handling of the gas receptacle	:	Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents.
Safe use of the product	:	The product must be handled in accordance with good industrial hygiene and safety procedures. Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief device(s) in gas installations. Ensure the complete gas system was (or is regularily) checked for leaks before use. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Hygiene measures	:	Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Comply with applicable regulations.
Storage conditions	:	Do not expose to temperatures exceeding 52 °C/ 125 °F. Keep container closed when not in use. Protect cylinders from physical damage; do not drag, roll, slide or drop. Store in well ventilated area.
Incompatible products	:	None known.
Incompatible materials	:	None known.

Conditions for safe storage, including any incompatibilities	:	Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Container valve guards or caps should be in place. Containers should be stored in the vertical position and properly secured to prevent them from falling over. Stored containers should be periodically checked for general condition and leakage. Keep container below 50°C in a well ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.
Storage area	:	Store away from heat. Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Nitrogen (7727-37-9)
Not applicable

Methane (74-82-8)
Not applicable

Hydrogen Sulfide (7783-06-4)		
ACGIH	ACGIH TWA (ppm)	1 ppm
ACGIH	ACGIH STEL (ppm)	5 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)
IDLH	US IDLH (ppm)	100 ppm
NIOSH	NIOSH REL (ceiling) (mg/m³)	15 mg/m³
NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm

Oxygen (7782-44-7)
Not applicable

Carbon monoxide (630-08-0)		
ACGIH	ACGIH TWA (ppm)	25 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	55 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	50 ppm
IDLH	US IDLH (ppm)	1200 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	40 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	35 ppm
NIOSH	NIOSH REL (ceiling) (mg/m³)	229 mg/m³
NIOSH	NIOSH REL (ceiling) (ppm)	200 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure exposure is below occupational exposure limits (where available). Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Oxygen detectors should be used when asphyxiating gases may be released. Consider the use of a work permit system e.g. for maintenance activities.
Environmental exposure controls	:	Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear working gloves when handling gas containers. 29 CFR 1910.138: Hand protection

Eye protection:

Wear safety glasses with side shields. 29 CFR 1910.133: Eye and Face Protection

Skin and body protection:

Wear suitable protective clothing, e.g. lab coats, coveralls or flame resistant clothing.

Respiratory protection:

None necessary during normal and routine operations. See Sections 5 & 6.

Thermal hazard protection:

None necessary during normal and routine operations.

Other information:

Wear safety shoes while handling containers. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Gas
Appearance	:	Clear, colorless gas.
Color	:	Colorless
Odor	:	Rotten eggs
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Relative gas density	:	Similar to air
Solubility	:	Water: No data available
Log Pow	:	Not applicable for gas-mixtures. Not applicable for gas-mixtures.
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	Not applicable (non-flammable gas).
Oxidizing properties	:	None.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

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

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Nitrogen (7727-37-9)	
LC50 inhalation rat (ppm)	820000 ppm/4h
ATE US (gases)	820000.000 ppmV/4h

Methane (74-82-8)	
LC50 inhalation rat (ppm)	820000 ppm/4h
ATE US (gases)	820000.000 ppmV/4h

Hydrogen Sulfide (7783-06-4)	
LC50 inhalation rat (mg/l)	700 mg/m³ (Exposure time: 4 h)
LC50 inhalation rat (ppm)	356 ppm/4h
ATE US (gases)	356.000 ppmV/4h
ATE US (vapors)	0.990 mg/l/4h
ATE US (dust, mist)	0.990 mg/l/4h

Oxygen (7782-44-7)	
LC50 inhalation rat (ppm)	800000 ppm/4h
ATE US (gases)	800000.000 ppmV/4h

Carbon monoxide (630-08-0)	
LC50 inhalation rat (ppm)	1880 ppm/4h
ATE US (gases)	1880.000 ppmV/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after inhalation : May displace oxygen and cause rapid suffocation.

Symptoms/effects after skin contact : Adverse effects not expected from this product.

Symptoms/effects after eye contact : Adverse effects not expected from this product.

Symptoms/effects after ingestion : Ingestion is not considered a potential route of exposure.

Symptoms/effects upon intravenous administration : Not known.

Chronic symptoms : Adverse effects not expected from this product.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No ecological damage caused by this product.

Methane (74-82-8)	
LC50-96 h - fish [mg/l]	147.5 mg/l
EC50 48h - Daphnia magna [mg/l]	69.4 mg/l
EC50 72h Algae [mg/l]	19.4 mg/l

Hydrogen Sulfide (7783-06-4)	
LC50 fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50-96 h - fish [mg/l]	0.007 - 0.019 mg/l
EC50 48h - Daphnia magna [mg/l]	0.12 mg/l
EC50 72h Algae [mg/l]	1.87 mg/l

Carbon monoxide (630-08-0)	
LC50-96 h - fish [mg/l]	Study scientifically unjustified.
EC50 48h - Daphnia magna [mg/l]	Study scientifically unjustified.
EC50 72h Algae [mg/l]	Study scientifically unjustified.

12.2. Persistence and degradability

Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance	
Persistence and degradability	No data available.

Nitrogen (7727-37-9)	
Persistence and degradability	No ecological damage caused by this product.

Methane (74-82-8)	
Persistence and degradability	The substance is readily biodegradable. Unlikely to persist.

Hydrogen Sulfide (7783-06-4)	
Persistence and degradability	Not applicable for inorganic gases.

Oxygen (7782-44-7)	
Persistence and degradability	No ecological damage caused by this product.

Carbon monoxide (630-08-0)	
Persistence and degradability	Will not undergo hydrolysis. Not readily biodegradable. Not applicable for inorganic gases.

12.3. Bioaccumulative potential

Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance	
Log Pow	Not applicable for gas-mixtures.
Log Kow	Not applicable for gas-mixtures.
Bioaccumulative potential	No data available.

Nitrogen (7727-37-9)	
Log Pow	Not applicable for inorganic gases.
Bioaccumulative potential	No ecological damage caused by this product.

Methane (74-82-8)	
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Hydrogen Sulfide (7783-06-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	Not applicable for inorganic gases.
Bioaccumulative potential	No data available.

Oxygen (7782-44-7)	
Log Pow	Not applicable for inorganic gases.
Bioaccumulative potential	No ecological damage caused by this product.

Carbon monoxide (630-08-0)	
Log Pow	1.78

Carbon monoxide (630-08-0)	
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

12.4. Mobility in soil

Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance	
Mobility in soil	No data available

Nitrogen (7727-37-9)	
Ecology - soil	No ecological damage caused by this product.

Methane (74-82-8)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Hydrogen Sulfide (7783-06-4)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Oxygen (7782-44-7)	
Ecology - soil	No ecological damage caused by this product.

Carbon monoxide (630-08-0)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5. Other adverse effects

Effect on ozone layer : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. Ensure that the emission levels from local regulations or operating permits are not exceeded.

Product/Packaging disposal recommendations : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more guidance on suitable disposal methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1956 Compressed gas, n.o.s. (Nitrogen, Oxygen), 2.2

UN-No.(DOT) : UN1956

Proper Shipping Name (DOT) : Compressed gas, n.o.s.

Class (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

Hazard labels (DOT) : 2.2 - Non-flammable gas

DOT Packaging Non Bulk (49 CFR 173.xxx) : 302;305

DOT Packaging Bulk (49 CFR 173.xxx) : 314;315

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Packaging Exceptions (49 CFR 173.xxx) : 306;307

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

DOT Vessel Stowage Location : A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

Special transport precautions	:	Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

Transportation of Dangerous Goods

Transport document description	:	UN1956 Compressed gas, n.o.s., 2.2
UN-No. (TDG)	:	UN1956
Proper Shipping Name	:	Compressed gas, n.o.s.
TDG Primary Hazard Classes	:	2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.
TDG Special Provisions	:	16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a)UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b)UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c)UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d)UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e)UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the “Food and Drugs Act”. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a)UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b)UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS. SOR/2014-306,148 - (1) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles if (a)the working pressure in each receptacle is less than 5 000 KPa; (b)the capacity of each receptacle is less than 12 L; (c)each receptacle has a minimum burst pressure of (i)at least 3 times the working pressure, when the receptacle is fitted with a relief device, or (ii)at least 4 times the working pressure, when the receptacle is not fitted with a relief device; (d)each receptacle is manufactured from material that will not fragment upon rupture; (e)each detector is manufactured under a quality assurance program; ISO 9001:2008 is an example of a quality assurance program. (f)the detectors are transported in strong outer means of containment; and (g)a detector in its outer means of containment is capable of withstanding a 1.2 m drop test without breakage of the detector or rupture of the outer means of containment. (2)Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles and that are included in equipment, if (a)the conditions set out in paragraphs (1)(a) to (e) are met; and (b)the equipment is contained in a strong outer means of containment or the equipment affords the detectors with protection that is equivalent to that provided by a strong outer means of containment. (3)These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles, including detectors in radiation detection systems, if the detectors meet the requirements of subsection (1) or (2), as applicable, and the capacity of the receptacles that contain the detectors is less than 50 mL. SOR/2014-306
Explosive Limit and Limited Quantity Index	:	0.125 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	75 L

Transport by sea

Transport document description (IMDG)	:	UN 1956 COMPRESSED GAS, N.O.S., 2
UN-No. (IMDG)	:	1956
Proper Shipping Name (IMDG)	:	COMPRESSED GAS, N.O.S.
Class (IMDG)	:	2 - Gases
Limited quantities (IMDG)	:	120 ml

Air transport

Transport document description (IATA)	:	UN 1956 COMPRESSED GAS, N.O.S., 2.2

UN-No. (IATA)	:	1956
Proper Shipping Name (IATA)	:	COMPRESSED GAS, N.O.S.
Class (IATA)	:	2

SECTION 15: Regulatory information

15.1. US Federal regulations

Nitrogen (7727-37-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Methane (74-82-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Hydrogen Sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
Section 302 EPCRA Reportable Quantity (RQ)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 313 - Emission Reporting	1 %

Oxygen (7782-44-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Carbon monoxide (630-08-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Nitrogen (7727-37-9)
Listed on the Canadian DSL (Domestic Substances List)

Methane (74-82-8)
Listed on the Canadian DSL (Domestic Substances List)

Hydrogen Sulfide (7783-06-4)
Listed on the Canadian DSL (Domestic Substances List)

Oxygen (7782-44-7)
Listed on the Canadian DSL (Domestic Substances List)

Carbon monoxide (630-08-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Nitrogen (7727-37-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Methane (74-82-8)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Hydrogen Sulfide (7783-06-4)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Oxygen (7782-44-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Carbon monoxide (630-08-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Nitrogen (7727-37-9)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Methane (74-82-8)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Hydrogen Sulfide (7783-06-4)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Oxygen (7782-44-7)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Carbon monoxide (630-08-0)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

Carbon monoxide (630-08-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

Nitrogen (7727-37-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Methane (74-82-8)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Hydrogen Sulfide (7783-06-4)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Oxygen (7782-44-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Carbon monoxide (630-08-0)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 12/19/2017

Other information : This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product.

Full text of H-phrases:

H220	Extremely flammable gas
H270	May cause or intensify fire; oxidizer
H280	Contains gas under pressure; may explode if heated
H330	Fatal if inhaled
H331	Toxic if inhaled
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

SDS US (GHS HazCom 2012)

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this gas mixture. To the best of Calgaz's knowledge, the information contained herein is reliable and accurate as of this date; however, accruacy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

MATERIAL SAFETY DATA SHEET (MSDS)/SAFETY DATA SHEET (SDS)

General Chemistry 13

I. Product and Company Identification

Product Name: Piccolo® Reagent Disc – General Chemistry 13

A point of care blood diagnostic product

Part Numbers: 400-1029 (single); 400-0029 (10 pack); 400-0029-4 (4 pack)

Company Information:

Abaxis, Inc.
3240 Whipple Road
Union City, CA 94587
Tel: +1-510-675-6500
Fax: +1-510-441-6150

Abaxis Europe GmbH
Bunsenstr. 9-11
64347 Griesheim, Germany
Tel: +49 6155 780 21 0 (EU)
Fax: +49 6155 780 21 111

Customer Support:

+1-800-822-2947 (US),
abaxis@abaxis.com

Tel: +49 6155 780 21 0 (EU)
abaxis@abaxis.de

Emergency Number: +1-800-822-2947 (US)

II. Hazard Identification

OSHA Hazards: No known OSHA hazards

GHS Hazards: Not a dangerous or hazardous substance or preparation according to the Global Harmonized System (GHS).

Warning

CLP Hazards

H302	Harmful if swallowed
H315	Causes skin irritation
H335	May cause respiratory irritation
H401	To avoid risks to human health and the environment, comply with the instructions for use
P273	Avoid release to the environment
P235	Keep cool (2-8°C)
P308 + P313	If exposed or concerned: Get medical advice/attention

HMIS Ranking:

Health hazard	1
Flammability	0
Physical hazards	0

NFPA Rating:

Health hazard	1
Fire	0
Reactivity Hazard	0

Potential Health Effects:

Inhalation	May cause respiratory tract irritation
Skin	May cause skin irritation
Eyes	May cause eye irritation

III. Composition/Information on Ingredients

This product consists of reagent beads comprised of a mixture of low hazard lyophilized chemicals beads enclosed in a plastic rotor. These beads are in concentrations not associated with human or environmental toxicity, which contain among the listed items, enzymes, preservatives and stabilizers in concentrations under 1%. Each rotor contains a cup of diluent containing less than 0.5 ml of water and preservatives in concentrations of less than 1%, including Sodium Azide, in concentrations below reporting requirements. Table 1 below lists the chemicals present in the panel in concentrations of greater than 1%:

TABLE 1

NAME OF SUBSTANCE	%	CAS#	EC#	HAZARD
D- Mannitol	8.8	69-65-8	200-711-8	Skin Irrit. 2
Polyethylene glycol, 8000	7.4	25322-68-	500-038-2	Skin Irrit. 2
Dextran, 70 USP	5.7	9004-54-0	232-677-5	Skin Irrit. 2
Tris(hydroxymethyl)amino	4.2	77-86-1	201-064-4	Skin Irrit. 2
Polyethylene glycol, 3400	5.1	25322-68-	500-038-2	Skin Irrit. 2
Polyethylene glycol, 2000	4.6	9004-74-4	215-801-2	Skin Irrit. 2
Sodium Chloride	4.2	7647-14-5	231-598-3	Skin Irrit. 2
POPSO, Disodium salt	2.7	68189-43-	269-199-1	Skin Irrit. 2
Sodium Thiocyanate	2.3	540-72-7	208-754-4	Skin Irrit. 2
L-Aspartic Acid	1.7	56-84-8	200-291-6	Skin Irrit. 2
Tris, HCl	1.0	1185-53-1	214-684-5	Skin Irrit. 2

TABLE 1, continued

NAME OF SUBSTANCE	%	CAS#	EC#	HAZARD
Lithium Hydroxide,	1.6	1310-65-2	270-438-7	Skin Irrit. 2

IV. First Aid Measures

In case of eye contact: Flush eyes with copious amounts of water for a minimum of 15 minutes

In case of inhalation: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention

In case of skin contact: Flush exposed skin with copious amounts of water for a minimum of 15 minutes

In case of ingestion: Contact a physician in case of ingestion

V. Fire-Fighting Measures

No flammable properties are associated with this product.

Extinguishing media: Use water spray, dry chemical or carbon dioxide

Hazardous combustion products: May result in the formation of nitrogen and carbon oxides

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

Additional information: Combustion of the plastic rotor containing this preparation may result in toxic particulates and gases

VI. Accidental Release Measures

Personal precautions**:**

Eye Protection Wear safety goggles or a face shield when cleaning up spills

Skin Protection Wear protective attire that prevents contamination of skin and personal clothing

Hand Protection Wear nitrile or vinyl gloves that cover exposed skin

Other Protections Avoid breathing mists, dusts, and aerosols

Environmental Controls: Prevent spilled product from entering drains

Spill Clean-up Measures:	Contain the material to prevent it from becoming airborne Place absorbent material on top of, and around the perimeter of the spill Sweep up the spilled material and decontaminate the area with soap and water or an equivalent cleaner

VII. Handling and Storage

This product is to be stored inside its packaging at 2-8°C in a cool, dry location. Wear gloves when handling the product and wash hands after removing gloves.

VIII. Exposure Controls/Personal Protection

None of the chemicals in this preparation are assigned occupational exposure limits. This product can be safely handled under normal conditions with no controls.

Engineering Controls:	Provide ventilation in work areas where this product is handled
Personal Protective Equipment:	Safety glasses and chemical-resistant gloves recommended

IX. Physical and Chemical Properties

Physical state:	Solid. Spherical lyophilized beads are enclosed in a sealed plastic package
Color:	Multi-colored beads
Odor:	Odorless
Odor threshold:	None established
Chemical Properties:	None available for • pH, Melting point • Boiling point • Flash point • Lower Explosive Limit • Upper Explosive Limit • Vapor pressure • Vapor density (air=1) • Density (g/cm3) • Water solubility (20°C in g/l) • Auto ignition temperature

X. Stability and Reactivity

Reactivity:	This preparation is not known to be reactive violently
Chemical Stability:	This preparation is known to be chemically stable
Thermal Decomposition:	Will decompose when burned
Conditions to Avoid:	Sunlight, heat (temperatures above 32°C)
Incompatible Materials:	No data available
Hazardous Decomposition Products:	No harmful decomposition products known
Storage Conditions:	Store in a cool (2-8°C), dry location

XI. Toxicological Information

No information found on Specific Symptoms. The toxicological properties of this preparation have not been fully investigated. Table 2 below lists the chemicals contained in the Panel and their toxicology information:

TABLE 2

NAME OF SUBSTANCE	ACUTE TOXICITY LD_{50}/ LC_{50}	CHRONIC TOXICITY (CMR)[1]
D- Mannitol	13,500 mg/kg (Oral, Rat)	No data available
D(+)Trehalose, Dihydrate	No data available	No data available
Dextran, 70 USP	10,700 mg/kg (scu, Rat)	Reproductive effects to women at high doses
Bovuminar reagent pure powder	No data available	No data available
HEPES	No data available	No data available
L-Alanine, Free acid	No data available	No data available
L-Aspartic Acid	5,000 mg/kg (Oral, Rat)	No data available
Lithium Hydroxide	368 mg/kg (Oral, Rat)	No data available
N-Octylglucoside	No data available	No data available
Polyethylene glycol, 3400	> 50,000 mg/kg (Oral, Rat)	No data available
Polyethylene glycol, 8000	> 50000 mg/kg (Oral, Rat)	No data available
Polyethylene Glycol 2000	> 50000 mg/kg (Oral, Rat)	No data available
POPSO, Free acid	980 mg/kg. (Oral, Rat)	No data available
Sodium Chloride	3000 mg/kg (Oral, Rat)	No data available

TABLE 2, continued

NAME OF SUBSTANCE	ACUTE TOXICITY LD_{50}/ LC_{50}	CHRONIC TOXICITY (CMR)[1]
Sodium Potassium Tartrate	No data available	No data available
Tris (hydroxymethyl) amino methane	5900 mg/kg (Oral, Rat)	No data available
Sodium Thiocyanate	764 mg/kg (Oral Rat)	No data available
Glycylglycine	No data available	No data available

(CMR) [1]– Refers to carcinogenicity, mutagenicity, and reproductive hazards.

XII. Ecological Information

No information found. This preparation is very soluble in water, and is not anticipated to present adverse ecotoxicological effects.

XIII. Disposal Considerations

Waste Treatment Methods: Check regional waste requirements

Waste Treatment Options: Treatment options approved by local authorities

Sewage Disposal Options: Check with local authorities before discharge to the sewer

Other Disposal Recommendations: Dispose of according to local, state, and national regulatory requirements

U.S. Waste Classification: Non-RCRA Waste

California Waste Codes: H132

XIV. Transport Information

Follow federal and local regulations.

DOT and IATA Shipping Information:

Not regulated as a dangerous good

ADR Information:

Not Applicable

IMDG:

Not a dangerous good

XV. Regulatory Information

US OSHA:	Not regulated as a hazardous material
US EPA:	Hazards to the environment have not been thoroughly investigated
EU Regulations:	This material safety data sheet conforms to Regulation (EC) No 1272/2008, 1907/ 2006, and other requirements established by the European Union
National Regulations:	Germany: Water Hazard Class I
Chemical Safety Assessment:	A Chemical Safety Assessment has not been completed for this product

XVI. Other Information

The above information is believed to be correct but does not purport to be inclusive and shall be used only as a guide. Abaxis shall not be held liable for any damage resulting from handling or from contact with the above product.