

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Synergex

Other means of identification : Not applicable

Recommended use : Sanitizer - Food contact surface

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.098 % - 2.0 %

Company : Ecolab Inc.
1 Ecolab Place
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 11/29/2024

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Oxidizing liquids : Category 3

Skin sensitization : Category 1

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 3

Skin corrosion : Category 1A

Serious eye damage : Category 1

Product AT USE DILUTION

Eye irritation : Category 2B

Skin sensitization : Category 1

GHS label elements

Product AS SOLD

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May intensify fire; oxidizer.
Harmful if swallowed.
Toxic in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**
Keep away from heat. Keep/Store away from clothing/ combustible materials. Take any precaution to avoid mixing with combustibles.
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin

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thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. 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/ doctor. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION

Hazard pictograms

:



Signal Word

: Warning

Hazard Statements

: May cause an allergic skin reaction.
Causes eye irritation.

Precautionary Statements

: **Prevention:**

Avoid breathing mist or vapors. Wash skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

Response:

IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Wash contaminated clothing before reuse.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Product AS SOLD

Other hazards

: Do not mix with bleach or other chlorinated products – will cause chlorine gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical name	CAS-No.	Concentration (%)
Sulfuric acid	7664-93-9	10 - 30
Hydrogen peroxide	7722-84-1	10.7
Secondary Alkanesulphonates	5324-84-5	5 - 10
Acetic acid	64-19-7	1 - 5
Peroxyacetic acid	79-21-0	2.38

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Octanoic acid	124-07-2	1 - 5
9 -Octadecenoic acid (9Z)-, sulfonated, oxidized, potassium salts	1315321-94-8	1 - 5
Peroxyoctanoic acid	33734-57-5	0.63

Product AT USE DILUTION

Chemical name	CAS-No.	Concentration (%)
Sulfuric acid	7664-93-9	0.1 - 1
Hydrogen peroxide	7722-84-1	0.214
Peroxyoctanoic acid	33734-57-5	0.0126
Peroxyacetic acid	79-21-0	0.0476

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION

In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
If swallowed	: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
If inhaled	: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

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Suitable extinguishing media	: Water Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: Foam Dry chemical
Specific hazards during fire fighting	: Special protective equipment for fire-fighters Oxidizer. Contact with other material may cause fire. On decomposition, releases oxygen which may intensify fire. Oxidizer; material is an oxidizer which may readily react with other materials, especially upon heating. In case of a fire, if it is possible without risk, remove all containers exposed to the fire and store them in a safe place, away from any source of heat. Cool closed containers exposed to fire with water spray.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Sulfur oxides
Special protective equipment for fire-fighters	: In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Move all flammable sources out of danger and keep them away from the scene. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water. DO NOT hermetically seal any defective containers, including drums (risk of bursting due to the decomposition of the product)
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Isolate the waste do not allow it to come into contact with incompatible materials. For small spills contain with sand or vermiculite and dilute the contained product at least 10 times with water. Transfer to an open topped container and remove to a safe place for neutralization* / disposal. For large spills contain spill and evacuate the area, leave until the reaction subsides, then collect up for disposal. Obtain consent from the local water company / authority if considering discharge to sewer. *NEUTRALIZATION : once diluted, neutralize with a suitable alkali such as sodium bicarbonate. Combustible materials exposed to this product should be rinsed immediately with large amounts of water to ensure that all product is removed. Residual product which is allowed to dry on organic materials such as rags, cloths, paper, fabrics, cotton, leather, wood, or other combustibles may spontaneously ignite and result in a fire.

Product AT USE DILUTION

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Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling	: Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
Conditions for safe storage	: Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. Pressure bursts may occur due to gas evolution if the container is not adequately vented. Do not hermetically seal the container. Always transport and store the containers upright. Risk of overpressure and bursting in the event of decomposition in closed containers and in pipes.
Storage temperature	: 5 °C to 35 °C

Product AT USE DILUTION

Advice on safe handling	: Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
Conditions for safe storage	: Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
sulphuric acid	7664-93-9	TWA (Thoracic particulate matter)	0.2 mg/m ³	ACGIH
		TWA	1 mg/m ³	NIOSH REL
		TWA	1 mg/m ³	OSHA Z1

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Hydrogen peroxide	7722-84-1	TWA	1 ppm	ACGIH
		TWA	1 ppm 1.4 mg/m ³	NIOSH REL
		TWA	1 ppm 1.4 mg/m ³	OSHA Z1
Acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m ³	NIOSH REL
		STEL	15 ppm 37 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	OSHA Z1
Peracetic acid	79-21-0	STEL	0.4 ppm	ACGIH

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Wear eye protection and/or face protection.

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.
Wash face, hands and any exposed skin thoroughly after handling.
Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Wear eye protection and/or face protection.

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Color	: clear, colorless	colorless
Odor	: pungent	pungent
pH	: 0.2 - 1.5, (100 %)	2.0 - 5.0
Flash point	: Not applicable	
Odor Threshold	: No data available	
Melting point/freezing point	: No data available	
Initial boiling point and boiling range	: > 35 °C	
Evaporation rate	: No data available	
Flammability (solid, gas)	: Not applicable	
Upper explosion limit	: No data available	
Lower explosion limit	: No data available	
Vapor pressure	: No data available	
Relative vapor density	: No data available	
Relative density	: 1.195 - 1.215	
Water solubility	: soluble	
Solubility in other solvents	: No data available	
Partition coefficient: n-octanol/water	: No data available	
Autoignition temperature	: No data available	
Thermal decomposition	: No data available	
Viscosity, kinematic	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: yes	
Molecular weight	: No data available	
VOC	: No data available	

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Reactivity	: Decomposes on heating. Potential for exothermic hazard.
Chemical stability	: Decomposes on heating. Contamination may result in dangerous pressure increases - closed containers may rupture.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: Direct sources of heat. Exposure to sunlight.
Incompatible materials	: Mild steel

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Strong bases
Chlorine-based bleaching agents
Metals
Polyvinyl chloride

Hazardous decomposition products : In the event of fire, see Section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD

Eyes : Causes serious eye damage.

Skin : Toxic in contact with skin. Causes severe skin burns. May cause allergic skin reaction.

Ingestion : Harmful if swallowed. Causes digestive tract burns.

Inhalation : May cause respiratory tract irritation. May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes : Causes serious eye damage. Causes eye irritation.

Skin : Causes severe skin burns. May cause allergic skin reaction.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Irritation, Corrosion, Allergic reactions

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact : Redness, Pain, Corrosion, Irritation

Skin contact : Redness, Pain, Irritation, Corrosion, Allergic reactions

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

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Toxicity

Product AS SOLD

Product

Acute oral toxicity	: Acute toxicity estimate : > 300 mg/kg
Acute inhalation toxicity	: 4 h Acute toxicity estimate : 12.96 mg/l Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate : > 200 mg/kg
Skin corrosion/irritation	: Corrosive
Carcinogenicity	: No data available
Reproductive effects	: No data available
Germ cell mutagenicity	: No data available
Teratogenicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration toxicity	: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product AS SOLD

Environmental Effects	: Harmful to aquatic life.
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Product AT USE DILUTION

Environmental Effects	: This product has no known ecotoxicological effects.
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Product AS SOLD

Product

Toxicity to fish	: 96 h LC50 Pimephales promelas: 22.97 mg/l
Toxicity to daphnia and other aquatic invertebrates	: 48 h EC50 Ceriodaphnia dubia (water flea): 11.4 mg/l Test substance: Product
Toxicity to algae	: No data available
Toxicity to fish (Chronic toxicity)	: 7 d NOEC Pimephales promelas: 13 mg/l Test substance: Product
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: 7 d NOEC Ceriodaphnia dubia (Water flea): 3 mg/l End point: Effects on reproduction parameters.

Components

Toxicity to algae	: Hydrogen peroxide 72 h EC50 Skeletonema costatum (marine diatom): 1.38 mg/l Acetic acid 72 h EC50 Skeletonema costatum (marine diatom): > 1,000 mg/l Peroxyacetic acid 72 h EC50: 0.7 mg/l 9 -Octadecenoic acid (9Z)-, sulfonated, oxidized, potassium salts 72 h EC50: 2.56 mg/l
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Peroxyoctanoic acid
72 h EC50 *Desmodesmus subspicatus* (green algae): 0.39 mg/l

Persistence and degradability

Product AT USE DILUTION

Biodegradable

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

- Disposal methods : Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.
- RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D001 (Ignitable)
D002 (Corrosive)

Product AT USE DILUTION

- Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

- UN number : 3149
- Description of the goods : Hydrogen peroxide and peroxyacetic acid mixtures, stabilized
- Class : 5.1 (8)
- Packing group : II

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Environmentally hazardous : no

Sea transport (IMDG/IMO)

UN number : 3149
Proper shipping name : HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED
Class : 5.1 (8)
Packing group : II
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPA Registration number : NOT FOR US

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1000	5500

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1000	5500

SARA 311/312 Hazards : Oxidizer (liquid, solid or gas)
Respiratory or skin sensitization
Serious eye damage or eye irritation
Acute toxicity (any route of exposure)
Skin corrosion or irritation

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

Sulfuric acid	7664-93-9	18.18 %
Hydrogen peroxide	7722-84-1	10.7 %
Peroxyacetic acid	79-21-0	2.38 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Peroxyacetic acid	79-21-0	2.38 %
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California Prop. 65

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

California Cleaning Product Right to Know Act of 2017 (SB 258)

This regulation does not apply to this product.

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

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United States TSCA Inventory :

On TSCA Inventory

Canadian Domestic Substances List (DSL) :

This product contains one or several components listed in the Canadian NDSL.

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS) :

On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances :

not determined

Japan. ENCS - Existing and New Chemical Substances Inventory :

not determined

Korea. Korean Existing Chemicals Inventory (KECI) :

not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

On or in compliance with the active portion of the TSCA inventory

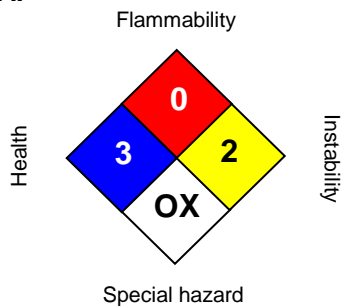
China. Inventory of Existing Chemical Substances in China (IECSC) :

On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI) :

not determined

SECTION 16. OTHER INFORMATION

Product AS SOLD**NFPA:****HMIS III:**

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	2

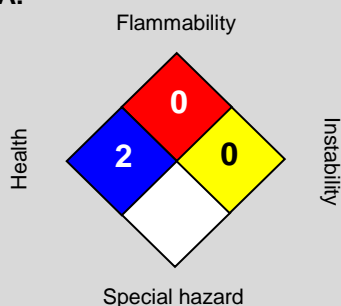
0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

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NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Issuing date : 11/29/2024
Version : 2.0
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.