

SAFETY DATA SHEET

Preparation Date: 7/28/2017

Revision Date: Not applicable

Revision Number: Not applicable

1. IDENTIFICATION

Product identifier

Product code: C1918
Product Name: Carbamide Peroxide

Other means of identification

Synonyms: Urea Hydrogen Peroxide
 Urea Peroxide
 Carbonyl diamine peroxide
 Percarbamide
 Hydrogen peroxide carbamide
 Hydrogen Peroxide urea
 Urea dioxide
 Carbamide perhydrate
 Carbamide Peroxide
 Urea, compd. with hydrogen peroxide (1:1)

CAS #: 124-43-6
RTECS # YT4860000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Dentistry/Dental applications. Disinfectant. Bleaching agent. In organic synthesis. Laboratory reagent. Research and Development.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000.

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Oxidizing solids	Category 3

Label elements

Danger

Hazard statements

Causes severe skin burns and eye damage
May cause respiratory irritation
May intensify fire; oxidizer



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep/Store away from clothing and other combustible materials
Take any precaution to avoid mixing with combustibles

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician

IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO₂ or Halon may provide limited control.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

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

Wash contaminated clothing before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Carbamide Peroxide	124-43-6	100

4. FIRST AID MEASURES

First aid measures

General Advice:	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
Skin Contact:	Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
Eye Contact:	Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause chemical burns to the respiratory tract. Nose and throat irritation. Severe skin and eye irritation or burns. Can cause lung irritation. May cause inflammation and edema of the larynx and bronchi. May cause chemical pneumonitis. May cause pulmonary edema. Coughing and wheezing. Causes digestive (gastrointestinal) tract irritation. Can burn mouth, throat, and stomach. May cause gastrointestinal (digestive) tract burns.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician:	Treat symptomatically.
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Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:	Water. CO2 may be of no value in extinguishing fires involving oxidizers and may only provide limited control.
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Unsuitable Extinguishing Media:	Dry chemical. Foam. Halons.
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Specific hazards arising from the chemical

Hazardous Combustion Products:	Carbon oxides, Nitrogen oxides
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Hazardous Combustion Products:	No information available.
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Specific hazards:	Oxidizer. Keep away from combustible materials (wood, paper, oil, clothing, etc.) The product is not flammable, but it may cause fire when in contact with other material. Contact with combustible or organic materials may cause fire. Contact with finely divided (powdered) metals may
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cause ignition (fire) or explosion. Will accelerate burning when involved in a fire. Container explosion may occur under fire conditions or when heated.

Special Protective Actions for Firefighters

Specific Methods:

For large fires, flood fire area with water from a distance. Cool affected containers with flooding quantities of water. Do not get water inside containers. DO NOT use combustible materials such as sawdust.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. DO NOT use combustible materials such as sawdust. Keep combustibles (wood, paper, oil, clothing, etc.) away from spilled material.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up

Sweep up and shovel. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Do not use combustible materials such as paper towels, sawdust, clothing, etc. to clean up spill. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors/dust. Do not ingest. Keep away from combustible material. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Air sensitive. Protect from light. Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Keep refrigerated. Store at 2-8 deg. C. Do not store near combustible materials. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

Reducing agents

Powdered metals
 Heavy metal salts
 Alcohols
 Combustible materials
 Organic materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Carbamide Peroxide	124-43-6	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Carbamide Peroxide	124-43-6	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Carbamide Peroxide	124-43-6	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles
- Skin and body protection:** Chemical resistant apron
 Long sleeved clothing
 Gloves
- Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Crystalline powder.	Color: White.
Odor: Odorless.	Taste No information available.	Formula: CH ₆ N ₂ O ₃
Molecular/Formula weight: 94.07 g/mol	Flammability: No information available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 75-85 °C/167-185 °F	Decomposition temperature(°C/°F): 90-93°C/194-199°F
Boiling point/range(°C/°F): No information available	Bulk density: 0.6-0.7 g/l	Density (g/cm³): 1.39
Specific gravity: No information available	pH: 6.3	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Easily soluble in water Solubility in Water: 500 g/l @ 20 deg. C; 730 g/l @ 40 deg. C; 970 g/l @ 60 deg. C	

10. STABILITY AND REACTIVITY

Reactivity

Oxidizer. Reacts with reducing agents, organic material, combustible materials, and powdered metals

Chemical stability

Stability: Stable under recommended storage conditions. Sensitive to light. Exposure to light accelerates decomposition. Slowly decomposes on contact with air.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Exposure to air. Exposure to light.

Incompatible Materials: Reducing agents
Powdered metals
Heavy metal salts
Alcohols
Combustible materials
Organic materials

Hazardous decomposition products: Urea. Hydrogen Peroxide. Carbon oxides. Nitrogen oxides (NO_x). Oxygen.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Inhalation. Skin. Eyes. Ingestion.

Acute Toxicity

Component Information

Carbamide Peroxide	
CAS-No.	124-43-6

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Corrosive. Causes severe irritation and burns.

Eye Contact: Causes severe irritation and burns. Possible eye damage.

Inhalation Severely irritating to the upper respiratory tract. Causes respiratory tract (nose, throat, lungs), and mucous membrane irritation. May cause chemical burns to the respiratory tract. May cause chemical pneumonitis. May cause pulmonary edema, inflammation, edema of bronchi and larynx. Symptoms may include coughing and

wheezing.

Ingestion May cause severe and permanent damage to the digestive tract. Causes severe irritation and burns of the digestive tract.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Carbamide Peroxide	124-43-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory Tract.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Carbamide Peroxide - 124-43-6

Freshwater Fish Species Data: 35 mg/L LC50 *Leuciscus idus* 48h

Water Flea Data: 7.7 mg/L EC50 *Daphnia magna*

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Carbamide Peroxide	124-43-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Subsidiary Class: 8
Packing group: III
Emergency Response Guide Number: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available
Description: UN1511,Urea hydrogen peroxide ,5.1,(8),PG III

TDG (Canada)

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Subsidiary Risk: (8)
Packing Group: III
Marine Pollutant: No Information available
Description: UN1511,UREA HYDROGEN PEROXIDE,5.1(8),PG III

ADR

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Packing Group: III
Subsidiary Risk: 8
Description: UN1511 Urea hydrogen peroxide,5.1(8),III

IMO / IMDG

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: III
Marine Pollutant: No information available
EMS: F-A

RID

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide

Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: III
Description: UN1511 Urea hydrogen peroxide,5.1(8),III

ICAO

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: III
Description: UN1511,Urea hydrogen peroxide,5.1(8),PG III

IATA

UN-No: UN1511
Proper Shipping Name: Urea hydrogen peroxide
Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: III
ERG Code: 5C
Special Provisions No information available
Description: UN1511,Urea hydrogen peroxide,5.1(8),PG III

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Carbamide Peroxide</i>	124-43-6	Present	Present KE-35147	Present	Not present	Present	Present	Present 204-701-4

U.S. Regulations

Carbamide Peroxide
New Jersey RTK Hazardous Substance List: 1985

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Carbamide Peroxide</i>	124-43-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Carbamide Peroxide</i>	124-43-6	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Carbamide Peroxide	124-43-6	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

- C Oxidizing materials
- E Corrosive material

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Carbamide Peroxide	124-43-6	Not Listed	Present

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Carbamide Peroxide	124-43-6	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Carbamide Peroxide	124-43-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Carbamide Peroxide	124-43-6	

EU - CLP (1272/2008)

R-phrase(s)

- R 8 - Contact with combustible material may cause fire.
- R34 - Causes burns.

S -phrase(s)

- S17 - Keep away from combustible material.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Carbamide Peroxide	124-43-6		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive.

O - Oxidising.

**16. OTHER INFORMATION**

Preparation Date: 7/28/2017
Revision Date: Not applicable
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet