

SAFETY DATA SHEET

1. Identification

Product identifier: SODA LIME

Other means of identification

Product No.: 3447, 3448

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway, Suite 200
Center Valley, PA 18034

Telephone: Customer Service: 855-282-6867

Fax:
Contact Person: Environmental Health & Safety
e-mail: info@avantormaterials.com

Emergency telephone number:

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Dermal)	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
Harmful to aquatic life.

Precautionary Statement

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
CALCIUM HYDROXIDE		1305-62-0	80%
POTASSIUM HYDROXIDE		1310-58-3	3%
SODIUM HYDROXIDE		1310-73-2	2%

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

4. First-aid measures

Ingestion: Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

Inhalation: Call a physician or poison control center immediately. Move to fresh air. Apply artificial respiration if victim is not breathing. If breathing is difficult, give oxygen.

Skin Contact: Call a physician or poison control center immediately. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy or thoroughly clean contaminated shoes.

Eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Causes serious eye irritation. May cause irritation to skin, eyes, and respiratory tract.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO₂, dry chemical, or alcohol resistant foam.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Spray in short bursts and avoid prolonged spraying.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Do not get in eyes. Avoid contact with eyes. Do not get in eyes, on skin, on clothing. Avoid contact with skin.

Conditions for safe storage, including any incompatibilities: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
CALCIUM HYDROXIDE	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
CALCIUM HYDROXIDE - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
CALCIUM HYDROXIDE - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
CALCIUM HYDROXIDE	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
POTASSIUM HYDROXIDE	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
SODIUM HYDROXIDE	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	Ceil_Time	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: 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. An eye wash and safety shower must be available in the immediate work area. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection

Hand Protection: No data available.

Other: Wear suitable protective clothing and gloves.

Respiratory Protection: In case of inadequate ventilation use suitable respirator.

Hygiene measures: Avoid contact with skin. Observe good industrial hygiene practices. Do not get in eyes. Avoid contact with eyes. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state: Solid
Form: Pellets
Color: White
Odor: Odorless

Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	2
Solubility(ies)	
Solubility in water:	Slightly Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	The substance is hygroscopic and will absorb water by contact with the moisture in the air.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Exposure to air. Moisture.
Incompatible Materials:	Oxidizing agents. Acids. Nitromethane. Phosphorus. Metals. Maleic Anhydride
Hazardous Decomposition Products:	Oxides of calcium. May decompose upon heating to produce corrosive and/or toxic fumes.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	No data available.
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Specified substance(s):
CALCIUM HYDROXIDE LD 50 (Rat): 7,340 mg/kg

Specified substance(s):
POTASSIUM HYDROXIDE LD 50 (Rat): 273 mg/kg
LD 50 (Rat): 1,230 mg/kg

Specified substance(s):
SODIUM HYDROXIDE LD 50 (Rat): 130 - 340 mg/kg

Dermal
Product: No data available.

Specified substance(s):
SODIUM HYDROXIDE LD 50 (Rabbit): 1,350 mg/kg

Inhalation
Product: No data available.

Repeated Dose Toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive Toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard

Product: No data available.

Other Effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

CALCIUM HYDROXIDE LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 160 mg/l Mortality
LC 50 (Zambezi barbel (*Clarias gariepinus*), 96 h): 33.8844 mg/l Mortality

SODIUM HYDROXIDE LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 125 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

SODIUM HYDROXIDE EC 50 (Water flea (*Ceriodaphnia dubia*), 48 h): 34.59 - 47.13 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

CALCIUM HYDROXIDE	No data available.
POTASSIUM HYDROXIDE	No data available.
SODIUM HYDROXIDE	No data available.

Other Adverse Effects: Harmful to aquatic organisms. Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number:	UN 1907
UN Proper Shipping Name:	Soda lime
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
Packing Group:	III
Marine Pollutant:	No

IMDG

UN Number:	UN 1907
UN Proper Shipping Name:	SODA LIME
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	III
Marine Pollutant:	No

IATA

UN Number:	UN 1907
Proper Shipping Name:	Soda lime
Transport Hazard Class(es):	
Class(es):	8
Label(s):	8
Marine Pollutant:	No
Packing Group:	III

15. Regulatory information

US Federal Regulations

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

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

POTASSIUM HYDROXIDE	Reportable quantity: 1000 lbs.
SODIUM HYDROXIDE	Reportable quantity: 1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not listed.

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

Chemical Identity	RQ
POTASSIUM HYDROXIDE	1000 lbs.
SODIUM HYDROXIDE	1000 lbs.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
CALCIUM HYDROXIDE	500 lbs
POTASSIUM HYDROXIDE	500 lbs
SODIUM HYDROXIDE	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

POTASSIUM HYDROXIDE	Reportable quantity: 1000 lbs.
SODIUM HYDROXIDE	Reportable quantity: 1000 lbs.

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

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

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

CALCIUM HYDROXIDE	Listed
POTASSIUM HYDROXIDE	Listed
SODIUM HYDROXIDE	Listed

US. Massachusetts RTK - Substance List

CALCIUM HYDROXIDE	Listed
POTASSIUM HYDROXIDE	Listed
SODIUM HYDROXIDE	Listed

US. Pennsylvania RTK - Hazardous Substances

CALCIUM HYDROXIDE	Listed
POTASSIUM HYDROXIDE	Listed
SODIUM HYDROXIDE	Listed

US. Rhode Island RTK

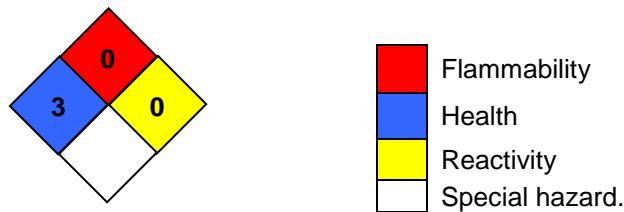
CALCIUM HYDROXIDE	Listed
POTASSIUM HYDROXIDE	Listed
SODIUM HYDROXIDE	Listed

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date:	12-30-2014
Revision Date:	No data available.
Version #:	1.0
Further Information:	No data available.

Disclaimer:

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