



DIVING-GRADE SODA LIME: INTERSORB® RG

4 to 8 Non-Indicating | SDS Ref IntRG9

1.	Identification of the substance and of the company/undertaking	
1.1	Product Identifier	
	Trade name/designation	Intersorb 408 and 812 non-indicating soda lime
	Product code numbers	2181006, 2181016, 2181008, 2181026
	Substance name	Soda lime non-indicating
	Appearance	White solid granules
	Absorbent CAS No.	Mixtures containing less than 4% Sodium
	REACH registration No.	Not applicable
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	For medical, veterinary or laboratory use to remove carbon dioxide from gas streams.	
1.3	Details of the supplier of the safety data sheet	
	Intersurgical Ltd. Crane House, Molly Millars Lane, Workingham, Birkshire, RG41 2RZ United Kingdom Tel: 0044 (0)1189 656300 Fax: 0044 (0)1189 656356 Email: info@intersurgical.co.uk Web: www.intersurgical.com	
1.4	Emergency telephone	
	Tel: 0044 (0)1189 656300	
2.	Hazards identification of granules	
	EYE CONTACT	Can cause serious and permanent eye injury
	SKIN CONTACT	Causes burns that can be deep and poor in healing
	INGESTION	Causes serious burns in the stomach and perforation
	INHALATION	Causes burns in the lungs and respiratory tract that can be delayed. Can cause lung damage
2.1	Classification of the substance or mixture	
2.1.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	

	Hazard classes and hazard categories	Hazard statements	
	Causes skin irritation	H315	
	Causes serious eye damage	H318	
2.2	Label elements		
2.2.1	Labeling according to Regulation (EC) No. 1272/2008 [CLP]		
	Hazard pictogram(s)		
	Signal word	Warning	
	Class	Irritant	
	Hazard statements		
	Causes skin irritation	H315	
	Causes serious eye damage	H318	
	Precautionary statements		
	P280	Wear protective gloves/protective clothing/eye protection/face protection.	
	P302/P352	IF ON SKIN: Wash with plenty of soap and water.	
	P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
	P332/313	If skin irritation occurs, get medical advice/attention.	
2.3	Other hazards		
	None		
2.4	Hazards identification of canister body and base/lids — Summary of most important information on hazards		
	None		
	Specific danger/hazard		
	None		
3.	Composition information on ingredients of granules		
	Ingredient	CAS No.	EINECS/ELINCS
	Calcium Hydroxide	13050-62-0	215-137-3
	Sodium Hydroxide	1310-73-2	215-185-5
	Water		13.5% - 17.5%
	Classification according to Regulation (EC) No. 1272/2008 [CLP]		
	This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]		
4.	First Aid Measures		
4.1	General Information		

	If exposed	
	Immediately call a POISON CONTROL CENTER or doctor/physician. If unconscious, place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated clothing. Do not leave affected person unattended.	
4.2	After inhalation	
	Immediately call a POISON CONTROL CENTER or doctor/physician. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.	
4.3	In case of skin contact	
	After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. Immediate medical treatment is required because corrosive injuries that are not treated are hard to cure.	
4.4	After eye contact	
	In case of contact with eyes, flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Do NOT allow victim to rub or keep eyes closed. Consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.	
4.5	After injection	
	Immediately call a POISON CONTROL CENTER or doctor/physician. Do not induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.	
4.6	Self-protection of the first order	
	Avoid inhalation and skin contact. Do not get into eyes and do not ingest. Wear protective gloves and goggles.	
4.7	Information to physician	
	Symptoms	No data available
	Hazards	No data available
	Treatment	No data available
5.	Firefighting measures	
5.1	Suitable extinguishing media	
	The product itself does not burn and is not considered to be a fire hazard. The product is not considered to be an explosive hazard. Packaging may be combustible. Coordinate fire-fighting measures to the fire surroundings.	
5.2	Extinguishing media which must not be used for safety reasons	
	USE POWDER	If possible
	AVOID WATER	If possible. If water is the only extinguishing media available, do not get water inside containers. This may result in alkaline run-off water.
	DO NOT USE CARBON DIOXIDE	
5.3	Special hazards arising from the substance or mixture	
	Extreme exothermic reactions with pure/high concentration of carbon dioxide. Reacts aggressively with acids.	
5.4	Advice to firefighters	
	Keep away from acids and pure/high concentrations of carbon dioxide.	
5.5	Additional information	
	Do not allow any run-off from fire-fighting to enter drains or water courses.	
6.0	Accidental release measures	
6.1	Personal precautions, protective equipment and emergency procedures	

	Use personal protection equipment. Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Remove persons to safety.
6.2	Environmental precautions
	Do not allow product to enter into surface water or drains.
6.3	Methods and material for contaminant and cleaning up
	Avoid contact with skin or inhalation of spillage, dust or vapor. Wear necessary protective equipment. Small amounts can be picked up using moist disposable cloth. Shovel into suitable dry containers for disposal and cover. Flush the area with water. Avoid dust formation.
6.4	Additional information
	No data available
7.	Handling and storage
7.1	Precautions for safe handling
	Do not handle broken packages without protective equipment. Avoid spilling. Wash thoroughly after handling. Use with adequate ventilation and dust extractor if necessary. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.
7.2	Conditions for safe storage, including any incompatibilities
	Store in a tightly closed/sealed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not store in direct sunlight. Keep away from strong acids. Store protected from moisture. Store at temperatures ranging from -20° C to +50° C. Do not allow to desiccate (dry out). Facilities storing or utilizing this material should be equipped with an eyewash facility. Store in a safe place away from children and not together with or near food, animal feed
7.3	Specific end use(s)
	No data available
8.	Exposure controls/personal protection
8.1	Appropriate engineering controls
	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.
8.2	Personal protective equipment
	
8.2.1	Eye/face protection
	Use approved safety goggles or face shield.
8.2.2	Skin protection
	Use protective gloves made of: Rubber or plastic
8.2.3	Protective clothing
	Wear appropriate clothing to prevent reasonably probably skin contact
8.2.4	Respiratory protection
	Work in fume cupboard if possible. Wear respirator if there is dust formation. Dust filter P2 (for fine dust).
8.3	Additional information

	Wash hands before breaks and after work. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Have eye shower equipment available.	
8.3.1	Workplace exposure limits (WELs) assigned by HSE (EH40/2005)	
	Sodium hydroxide	STEL (15 minutes) — 2 Mg/m ³
	Calcium hydroxide	LTEL (hour TWA) — 5 Mg/m ³
		LTEL (hour TWA) — 1* Mg/m ³
		STEL (15 minutes) — 4* Mg/m ³
	* Respirable fraction	
9.0	Physical and chemical properties	
9.1	Information on basic physical and chemical properties of granules	
	(a) Appearance/physical state	Solid porous granules 3-4 mm.
	(b) Odor	Slight chemical smell
	(c) Odor threshold	No data available
9.1.2	Safety relevant basic data	
	pH	pH14
	Melting point/freezing point	Not applicable
	Initial boiling point and boiling range	Not applicable
	Flash point	No data available
	Evaporation rate	Not applicable
	Flammability	Not applicable. The product is not considered to be an explosive hazard.
	Vapor pressure	No data available
	Vapor density	No data available
	Solubility	Slightly soluble in water. Aqueous solutions are alkaline.
	Auto-ignition temperature	No data available
	Decomposition temperature	No data available. Thermal decomposition to oxides at over 500° C.
	Viscosity	Not applicable
	Explosive properties	Not applicable. The product is not considered to be an explosive hazard.
	Oxidising properties	Not applicable
9.2	Other information	
	Bulk density	0.85 g/ml ± 0.02
10.	Stability and reactivity	
10.1	Reactivity	
	Extreme exothermic reactions with pure / high concentrations of carbon dioxide. Reacts aggressively with acids. Variable reactivity with different acidic gases.	
10.2	Chemical stability	

	Chemically stable unless in contact with other substances.	
10.3	Possibility of hazardous reactions	
	Extreme exothermic reactions with pure / high concentrations of carbon dioxide. Reacts aggressively with acids. Potentially toxic fumes can be produced with some acids.	
10.4	Conditions to avoid	
	Avoid contact with acids. Do not use with trichloroethylene and chloroform. Avoid contact with pure / high concentration of Carbon Dioxide.	
10.5	Incompatible materials	
	This product will corrode most metal and degrade condensation polymers.	
10.6	Hazardous decomposition products	
	Fire or high temperatures create can create harmful fumes of sodium oxide and calcium oxide. Low level of Amines may be released from decomposition of Ethyl Violet.	
10.7	Additional information	
	No data available	
10.8	Information on stability and reactivity of jericans	
	Chemical stability	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
	Conditions to avoid	Not applicable
	Incompatibility with other materials	May react with strong oxidizing agents such as chlorates,, nitrates, peroxides, etc.
	Hazardous decomposition products	Low molecular weight hydrocarbons, alcohols, aldehydes, acids, and ketones can be formed during thermal processing.
	Hazardous Polymerization	Hazardous polymerization will not occur.
11.	Toxicity information	
	No toxicity data is available for finished mixture.	
11.1	Health warnings	
	This chemical may cause skin/eye irritation and burns (corrosive).	
	SYMPTOMS AFTER INHALATION	Coughing. Smarting in nose, throat and mouth. Severe smarting. Tearing eyes. Swollen eye lids. Corneal damage.
	SYMPTOMS AFTER INGESTION	Smarting in mouth and throat. Stomach pain. Diarrhea.
	Route of entry	Inhalation, skin absorption, ingestion
	Target organs	Eyes, gastrointestinal tract, respiratory system, lungs, skin, mucous membranes.
11.2	Available toxicity information of major component Calcium Hydroxide	
	Toxicity endpoints outcome of the effects assessment	
	Calcium hydroxide	Not acutely toxic
	Oral	LD50 > 2500 mg/kg bw (OECD 425, rat)
	Dermal	LD50 > 2500 mg/kg bw (OECD 402, rabbit)
	Inhalation	No data available
	Classification for acute toxicity is not warranted	

Skin irritation/corrosion

A risk of serious damage to the eye (eye irritation studies (in vivo, rabbit). Based on experimental results, calcium hydroxide requires classification as severely irritating to the eye (H318 - Causes serious eye damage). Skin irritation: Calcium hydroxide is irritating to skin (in vivo, rabbit). Based on experimental results, calcium hydroxide requires classification as irritating to skin (H315 – Causes skin irritation).

Respiratory or skin sensitization

No data available. Calcium hydroxide is considered not to be a skin sensitizer, based on the nature of the effect (pH shift) and the essential requirement of calcium for human nutrition. Classification for sensitization is not warranted.

Germ cell mutagenicity

Bacterial reverse mutation assay (Ames test, OECD 471): Negative Mammalian chromosome aberration test: Negative. In view of the omnipresence and essentiality of Ca and of the physiological non-relevance of any pH shift induced by lime in aqueous media, lime is obviously void of any genotoxic potential including germ cell mutagenicity. Classification for genotoxicity is not warranted.

Carcinogenicity

Calcium (administered as Ca-lactate) is not carcinogenic (experimental result, rat). The pH effect of calcium hydroxide does not give rise to a carcinogenic risk. Human epidemiological data support lack of any carcinogenic potential of calcium hydroxide. Classification for carcinogenicity is not warranted.

Toxicity for reproduction

Calcium (administered as Ca-carbonate) is not toxic to reproduction (experimental result, mouse). The pH effect does not give rise to a reproductive risk. Human epidemiological data support lack of any potential for reproductive toxicity of calcium hydroxide. Both in animal studies and human clinical studies on various calcium salts no reproductive or developmental effects were detected. Also see the Scientific Committee on Food (Section 16.6). Thus, calcium hydroxide is not toxic for reproduction and/or development. Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

STOT – single exposure

From human data it is concluded that Ca(OH)₂ is irritating to the respiratory tract. As summarized and evaluated in the SCOEL recommendation (Anonymous, 2008), based on human data calcium hydroxide is classified as irritating to the respiratory system (H335 - May cause respiratory irritation).

11.3 Information on Toxicity Information of jericans

IMMEDIATE HEALTH EFFECTS

Acute oral toxicity	Polyethylene: NOAEL / rat / > 7950 mg/kg
Acute dermal toxicity	LD50 / not known
Acute inhalation toxicity	LD50 / not known
Eye irritation	This material is not expected to be irritating to the eyes
Skin irritation	This material is not expected to be irritating to the skin
Sensitization	Dermal - not a sensitizer/human


ADDITIONAL TOXICOLOGY INFORMATION

This product contains POLYMERIZED OLEFINS. During thermal processing (>350°F, >177°C) polyolefins can release vapors and gases (aldehydes, ketones and organic acids) which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs. Generally these irritant effects are all transitory. However, prolonged exposure to irritating offgases can lead to pulmonary edema. Formaldehyde (an aldehyde) has been classified as a probable human carcinogen by NTP, IARC (2A), and OSHA based on animal data and limited epidemiological evidence. The toxicological properties of this product have not been tested or have not been tested completely and its handling or use may be hazardous. EXERCISE DUE CARE. Long-term exposure to high dust concentrations may cause non-debilitating lung changes.

12. Ecological information

12.1	Ecotoxicity	
	Acute (short-term) fish toxicity	
	LC50	No data available
	EC50 species	Exposure time
	Chronic (long-term) fish toxicity	
	LC50	No data available
	EC50 species	Exposure time
	Acute (short-term) daphnia toxicity	
	LC50	No data available
	EC50 species	Exposure time
	Chronic (long-term) daphnia toxicity	
	LC50	No data available
	EC50 species	Exposure time
	Acute (short-term) algae toxicity	
	LC50	No data available
	EC50 species	Exposure time
	Chronic (long-term) algae toxicity	
	LC50	No data available
EC50 species	Exposure time	
Exposure time		
12.2	Persistence and degradability	No data available
12.3	Bioaccumulative potential	No data available
12.4	Mobility in soil	No data available
12.5	Results of PBT assessment	No data available
12.6	Other adverse effects	No data available
Summary:		
Ecotoxicity	Not regarded as dangerous for the environment	
Bioaccumulative potential	No bioaccumulation expected.	
Acute fish toxicity	No acute toxicity of fish expected	
12.7	Ecological information on jericans	
	ECOTOXICITY	This material is not expected to be harmful to aquatic organisms. Fish or birds may eat pellets which may obstruct their digestive tracts.
	ENVIRONMENTAL FATE	This material is not expected to be readily biodegradable.
13.	Disposal considerations	
	Intersorb Plus should be disposed of immediately after exhaustion is determined.	
	Waste Intersorb Plus will contain	

	Calcium Carbonate	Major proportion
	Calcium Hydroxide	Minor proportion
	Sodium Carbonate	Minor proportion
	There will also be a trace of indicator dye.	
	Intersorb does not contain any toxic materials and is not classified as a hazardous material. Intersorb that has been used in anaesthesia, may contain residual traces of volatile anaesthetics.	
	Disposal methods	
	The required disposal method of Intersorb (whether, exhausted, partially used or fresh), must be determined by the end user. This is to be in compliance with the regulations of regional authority concerned. This is usually by landfill or incineration.	
	Waste class	
	European Waste Catalogue (EWC) 06 02 01 calcium hydroxide : This product contains less than 4 % sodium hydroxide, with the major component being calcium hydroxide; it therefore, falls within the same waste class as calcium hydroxide.	
14.	Transport information	
	Not regulated	There are no restrictions for transport by road, rail, sea or air.
14.1	UN number (ADR)	Exempt under special provision 62
14.2	Proper shipping name (ADR)	Exempt under special provision 62
14.3	Transport class/s (ADR)	Exempt under special provision 62
14.4	Packing group (ADR)	Exempt under special provision 62
14.5	Hazard No. (ADR) 80	Exempt under special provision 62
14.6	Environmental hazards (ADR)	Exempt under special provision 62
14.7	Special procedures (ADR)	Exempt under special provision 62
14.8	This substance contains less than 4 % sodium hydroxide and is not subject to the requirements of ADR under special provision 62	
14.9	This substance contains less than 4 % sodium hydroxide and is not subject to IATA under special provision A16	
15.	Regulatory Information	
15.1	Safety, health and environmental regulations	
	The product is classified in accordance with EC regulation 1272/2008 (CLP). Other regulatory information is not applicable to this product.	
15.2	Chemical Safety Assessment	Not applicable
16.	Other information	
	This safety data sheet has been revised in accordance to EC regulation 1272/2008 (CLP), by Intersurgical, to the best of its knowledge.	
16.1	Source of data	
	Guidance on Labeling and Packaging under the CLP regulation 2011 CLP-an introduction to the new regulations, REACH READY 15/2/2011 Globally Harmonized System of Classification, Chapter 2	
	European Waste Catalogue (2001/118/EC as amended), Safety data sheets of raw materials and packaging. Other supplier safety data sheets.	
16.2	Hazards identification	

Hazard statements and Precautionary statements are given in section 2.	
EYE CONTACT	Can cause serious and permanent eye injury.
SKIN CONTACT	Causes burns, that can be deep and poor in healing.
INGESTION	Causes serious burns in the stomach and perforation.
INHALATION	Causes burns in the lungs and respiratory tract, that can be delayed. Can cause lung damage.
Classification according to Directive 67/548/EEC or 1999/45/EC	
Hazard classes and hazard categories	Hazard statements
Causes skin irritation	H315
Causes serious eye damage	H318
Labeling according to Regulation (EC) No. 1272/2008 [CLP]	
	
Signal word	Warning
Class	Irritant
Precautionary Statements	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302/P352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332/313	If skin irritation occurs: Get medical advice/attention
16th July 2022	
Contact	Mike Holder Tel: Quality and specialist information 0044(0)1189656361 Email: mhol@intersurgical.co.uk or info@intersurgical.co.uk