SAFETY DATA SHEETS

This SDS packet was issued with item:

071743517

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

071742279 071742303 071742337 071743418 071743434 071743442 071743459 071743475 071743491 071743509 071743525 071744028 078292603 078292606 078293303 078293306 078293403 078293406

DENTSPLY/International
DENTSPLY/Caulk
Safety Data Sheet **508058**

1. Identification

Product Name JELTRATE®	SDS Code Number 508058
Substance Identity JELTRATE® Alginate Impression Material	Date of Last Revision 09/11/12
Manufacturer: DENTSPLY Caulk	Address 38 West Clarke Avenue Milford DE 19963-1805 http://www.caulk.com http://www.dentsply.com
Grades or Minor Variant Identities Fast Set and Regular Set	Information Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
Product Use (for Canada) Dental Alginate Impression Material	Emergency Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

2. Hazard(s) Identification

Danger
May cause cancer by inhalation
May causes damage to lungs through prolonged or repeated exposure

Warning
Causes skin irritation

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment required.
If exposed or concerned: Get medical attention.
Store locked up.
Dispose of contents/container in accordance with local regulations
Wash hands thoroughly after handling.
Wear protective gloves.
If on skin: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients

Hazardous Components	C.A.S. Number	Exposure Limits	%
Silicon Dioxide -Crystalline - Cristobalite	14464-46-1	0.025 mg/M^3	< than 26
Silicon Dioxide - Crystalline -Quartz	14808-60-7	0.025 mg/M^3	< than 3
Silicon Dioxide – Amorphous - Diatomaceous Earth	68855-54-9	0.1 mg/M^3	< than 35
Calcium Sulfate	10101-41-4	10 mg/M^3	< than 20
Magnesium Oxide	1309-48-4	10 mg/M^3	< than 7
Tetrasodium Pyrophosphate	7722-88-5	5 mg/M^3	< than 3

Colorant Information: Fast Set Product contains D & C Red # 30 Aluminum Lake as colorant.
Regular Set Product contains synthetic Yellow Iron Oxide as colorant.

4. First Aid Measures

Routes of Exposure	First Aid Instructions	Immediate Medical Attention	Delayed Effects
Eye	Rinse opened eye for several minutes under running water. If symptoms persist consult physician	Not Applicable	Not Applicable
Skin	Immediately wash with soap and water and rinse	Not Applicable	Not Applicable

	thoroughly		
Inhalation	Supply fresh air, consult physician if symptoms persist	Not Applicable	Irritation and soreness in throat and nose. In extreme exposures some congestion may occur. Inhalation of crystalline silica has been classified by IARC as carcinogenic for humans (Group1). Inhalation of crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica. Respirable dust from this product may contain up to 26 % free crystalline silica (Cristobalite) and up to 3% crystalline silica (Quartz). As such it represents a risk to the respiratory system. Long term, unprotected exposure to dust levels in excess of the TLV or PEL may cause lung disease (silicosis).
Ingestion	If symptoms persist consult physician	Not Applicable	Low order of toxicity is expected when material is ingested.
Other	Not Applicable	Not Applicable	Not Applicable
Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically.			

5. Fire and Explosion Data

Flashpoint Method: Not Applicable	Flammable (Explosive) Limits in Air LEL: Not Applicable UEL: Not Applicable	Autoignition Temperature: Not Applicable	Other: Not Applicable
Flame Propagation or Burning Rate (for Solids): Not Applicable	Properties Contributing to Fire Intensity: Not Applicable	Flammability Classification: Not Applicable	
Extinguishing Media: Not Applicable		Extinguishing Media to Avoid: Water with full jet.	
Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.			
Unusual Fire and Explosion Hazards: In common with most inorganic / organic materials, this product should be treated as a combustible dust in the finely divided and suspended state. No dangerous decomposition products known. - Product does not present an explosion hazard.			

6. Accidental Release Measures

Containment Techniques: Material is a dry fluffy powder, which is colored pale yellow or pink. Store only in the original package. Keep package tightly sealed to minimize dust generation and accumulation. The avoidance of any air contaminant is always a recommended practice. Adherence to work place ventilation standards is an assurance of general personnel health and comfort		
Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and scoop up bulk material and place in a labeled plastic or metal container. Avoid gross skin contact to minimize the possibility of drying out the skin. Ensure adequate ventilation, by either natural or mechanical means to keep dust level below PEL.		
Evacuation Procedures: Not Applicable	Special Instructions: Not Applicable	Reporting Requirements: Not Applicable

7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals.
Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Protect from exposure to direct light. Store in a cool dry area. Store away from food and beverages. Minimize dust generation and accumulation. Avoid breathing dust and contact with eyes. Return cap to canisters immediately. Close pouches immediately after use. Continue to follow all MSDS/label warnings when handling empty containers. Observe normal warehouse handling procedures. The avoidance of any air contaminant is always a recommended practice. Adherence to work place ventilation standards is an assurance of general personnel health and comfort.

8. Exposure Control / Personal Protection

Ventilation: Ensure adequate ventilation, by either natural or mechanical means to keep dust level below PEL.		Other Engineering Controls: Not Applicable
Routes of Entry	Personal Protective Equipment (PPE) for Normal Use	PPE for Emergencies
Eye/Face	Safety Glasses	Not Applicable
Skin	The glove material has to be impermeable and resistant to the product.	Not Applicable
Inhalation	Recommended NIOSH approved nuisance dust mask. <10X PEL, use 3M 9900; <100X PEL, use MSA Ultra-Twin with H filter; <200X PEL, use MSA 01-00-06 with type C supplied air unit (continuous flow mode); or equivalent. Use sufficient natural or mechanical ventilation to keep dust level below PEL.	Not Applicable
Body Protection	Protective work clothing such as lab coat.	Not Applicable
General Hygiene Considerations and Work Practices: Avoid dusting when in use. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at end of work. Avoid contact with the eyes and skin. Do not eat, drink or smoke when using.		
Protective Measures During Repair and Maintenance of Contaminated Equipment: Not Applicable		
Other Protective Measures and Equipment: Not Applicable		

9. Physical and Chemical Characteristics

Appearance: Dry fluffy powder. May be colored pink or light yellow.		Odor: Spearmint odor.
Normal Physical State: Dry fluffy powder.		Melting Point: Not Applicable
Specific Gravity: 0.3 g/cm^3	Solubility in Water: Partially soluble	pH: Not Applicable
Vapor Pressure (mm Hg): Not Applicable	Vapor Density (AIR=1):	Evaporation Rate (Butyl Acetate =1): Not Applicable
Other: Not Applicable		

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Hydrofluoric Acid.	
Hazardous Products Produced During Decomposition: No dangerous decomposition products known if used according to Directions for Use. (DFU).	
Hazardous Polymerization: ☐May Occur ☒May Not Occur	Conditions to Avoid: None known
Stability? ☒Stable ☐Unstable	Conditions to Avoid: None known

11.Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data:
Inhalation of crystalline silica has been classified by IARC as carcinogenic for humans (Group1). Inhalation of crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica. Respirable dust from this product may contain up to 26 % free crystalline silica (Cristobalite). As such it represents a risk to the respiratory system. Long term, unprotected exposure to dust levels in excess of the TLV or PEL may cause lung disease (silicosis). The dry product may irritate the skin by drying it out.

Emergency Overview: Inhalation of crystalline silica has been classified by IARC as carcinogenic for humans (Group 1). Inhalation of crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica. Respirable dust from this product may contain up to 26 % crystalline silica (Cristobalite) and up to 3% crystalline silica (Quartz). As such, it represents a risk to the respiratory system. Long term, unprotected exposure to dust levels in excess of the TLV or PEL may cause lung disease (silicosis).

Routes of Exposure	Signs and Symptoms	Single, Repeated, or Lifetime Exposure	Severity (Mild, Moderate, Severe)	Acute and Chronic Health Effect(s)	Target Organ(s)
Eye	Material can cause irritation.	Single	Moderate	Irritation and possible corneal damage	Not Applicable
Skin	Material may be an irritant	Single & Repeated	Moderate	Irritation or possible allergic response.	Not Applicable
Inhalation	Transitory upper respiratory irritation or eye irritation.	Single & Repeated	Moderate	Irritation and soreness in throat and nose. In extreme exposures some congestion may occur. Inhalation of crystalline silica has been classified by IARC as carcinogenic for humans (Group1). Inhalation of crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica. Respirable dust from this product may contain up to 26 % free crystalline silica (Cristobalite) and up to 3 % crystalline silica (Quartz). As such it represents a risk to the respiratory system. Long term, unprotected exposure to dust levels in excess of the TLV or PEL may cause lung disease (silicosis).	Lung
Ingestion	Material is probably not harmful if swallowed	Not Applicable	Mild	Low order of toxicity is expected when material is ingested.	Not Applicable
Other	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Medical Conditions Aggravated by Exposure: Open sores and wounds of the skin.

Carcinogenicity NTP?: Not listed IARC monographs?: Yes Group 1 OSHA regulated?: No, All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

NFPA Hazard Classification Ratings (Scale 0-4), Health = 3, Fire = 0, Reactivity = 0

12.Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water streams or sewage system.

13.Disposal Considerations

Regulations: Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations. Vacuum clean dust with equipment fitted with a HEPA filter. Use dust suppression such as water if sweeping is necessary. Sweep up spilled material and place in closed containers for disposal.

Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

14.Transport Information

Regulated for Shipping: No. Not Regulated	DOT Shipping Name: Not Regulated	Packing Group: Not Applicable
Do Changes in Quantities, packaging, or shipment method change product classification? No	DOT Hazard Class: Not Applicable	UN Number: Not Applicable

15.Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. State Regulations California Proposition 65:
Warning: This product contains silica, crystalline (airborne particles of respirable size) which is known by the State of California to cause cancer.

International Regulations: Canadian Environmental Protection Act:
This product is a medical device and not subject to chemical notification requirements.

European Community Labeling: Not a dangerous preparation.

European Inventory of New and Existing Chemicals Substances (EINECS):
This product is a medical device and not subject to chemical notification requirements.

Other: Not Applicable

16.Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex.
All components are synthetically produced; none are derived from animal products.
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and shall not establish a legally valid contractual relationship.
The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.

Dentsply Jeltrate Alginate Impression Material

Dentsply (Australia)

Chemwatch Hazard Alert Code: **2**

Chemwatch: **4993-56**
Version No: **5.1.1.1**
Material Safety Data Sheet according to NOHSC and ADG requirements

Issue Date: **01/01/2013**
Print Date: **03/17/2015**
Initial Date: **Not Available**
S.Local.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Dentsply Jeltrate Alginate Impression Material
Synonyms	Jeltrate Alginate Impression Material
Other means of identification	Not Available

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

Relevant identified uses	Dental alginate impression material.

Details of the manufacturer/importer

Registered company name	Dentsply (Australia)
Address	11-21 Gilby Road Mount Waverley 3149 VIC Australia
Telephone	+61 3 9538 8240; 1300 552 929
Fax	+61 3 9538 8260
Website	www.dentsply.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1300 552 929 (Mon-Fri 9am-5pm)
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	1	
Toxicity	2	
Body Contact	2	
Reactivity	1	
Chronic	2	

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	Not Applicable
Risk Phrases [1]	**R36/37** Irritating to eyes and respiratory system. **R48/20** Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

Continued...

Relevant risk statements are found in section 2

Indication(s) of danger	T, Xn

SAFETY ADVICE

S01	Keep locked up.
S07	Keep container tightly closed.
S09	Keep container in a well ventilated place.
S13	Keep away from food, drink and animal feeding stuffs.
S20	When using do not eat or drink.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S28	After contact with skin, wash immediately with plenty of water
S29	Do not empty into drains.
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S45	In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well ventilated areas.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Other hazards

	Cumulative effects may result following exposure*.
	Inhalation may produce health damage*.
	Limited evidence of a carcinogenic effect*.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
91053-39-3	<35	diatomaceous earth, flux-calcined
14464-46-1	<26	cristobalite
10101-41-4	<20	calcium sulfate
1309-48-4.	<7	magnesium oxide
14808-60-7	<3	silica crystalline - quartz
7722-88-5	<3	tetrasodium pyrophosphate
		regular set product contains colourant:
None	NotSpec.	Yellow Iron Oxide
		fast set product contains colourant:
1342-90-1	NotSpec.	D&C Red No.30 Aluminium Lake

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes or combustion products are inhaled remove from contaminated area. ▸ Lay patient down. Keep warm and rested. ▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▸ Transport to hospital, or doctor, without delay.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

	▸ There is no restriction on the type of extinguisher which may be used. ▸ Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	▸ When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles. ▸ When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▸ Solid which exhibits difficult combustion or is difficult to ignite. ▸ Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. ▸ Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited; once initiated larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. ▸ A dust explosion may release large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	▸ Clean up waste regularly and abnormal spills immediately. ▸ Avoid breathing dust and contact with skin and eyes. ▸ Wear protective clothing, gloves, safety glasses and dust respirator. ▸ Use dry clean up procedures and avoid generating dust.
Major Spills	Moderate hazard. ▸ **CAUTION**: Advise personnel in area. ▸ Alert Emergency Services and tell them location and nature of hazard. ▸ Control personal contact by wearing protective clothing.

Continued...

	Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	‣ Avoid all personal contact, including inhalation. ‣ Wear protective clothing when risk of exposure occurs. ‣ Use in a well-ventilated area. ‣ Prevent concentration in hollows and sumps.
Other information	‣ Store in original containers. ‣ Keep containers securely sealed. ‣ Store in a cool, dry area protected from environmental extremes. ‣ Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container	‣ Polyethylene or polypropylene container. ‣ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Calcium sulfate: ‣ reacts violently with reducing agents, acrolein, alcohols, chlorine trifluoride, diazomethane, ethers, fluorine, hydrazine, hydrazinium perchlorate, hydrogen peroxide, finely divided aluminium or magnesium, peroxyfuroic acid, red phosphorus, sodium acetylide ‣ sensitises most organic azides which are unstable shock- and heat- sensitive explosives ‣ may form explosive materials with 1,3-di(5-tetrazolyl)triazene ‣ is incompatible with glycidol, isopropyl chlorocarbonate, nitrosyl perchlorate, sodium borohydride ‣ is hygroscopic; reacts with water to form gypsum and Plaster of Paris Silicas: ‣ react with hydrofluoric acid to produce silicon tetrafluoride gas ‣ react with xenon hexafluoride to produce explosive xenon trioxide ‣ reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds ‣ may react with fluorine, chlorates ‣ are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate ‣ may react vigorously when heated with alkali carbonates. ‣ Avoid reaction with oxidising agents

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	cristobalite	Silica - Crystalline Cristobalite (respirable dust) / Cristobalite (respirable dust)	0.1 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	calcium sulfate	Calcium sulphate (a)	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	magnesium oxide	Magnesium oxide (fume)	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	silica crystalline - quartz	Silica - Crystalline Quartz (respirable dust) / Quartz (respirable dust)	0.1 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	tetrasodium pyrophosphate	Tetrasodium pyrophosphate	5 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
diatomaceous earth, flux-calcined	Diatomaceous earth (flux calcinated; Filter agent, celite; Amorphous silica)	0.9 mg/m3	9.9 mg/m3	59 mg/m3
diatomaceous earth, flux-calcined	Diatomaceous silica, calcined	0.9 mg/m3	9.9 mg/m3	59 mg/m3

cristobalite	Cristobalite	0.075 mg/m3	0.41 mg/m3	41 mg/m3
calcium sulfate	Calcium(II) sulfate dihydrate (1:1:2)	10 mg/m3	10 mg/m3	21 mg/m3
calcium sulfate	Calcium sulfate anhydrous; (Drierite; Gypsum; Plaster of Paris)	30 mg/m3	330 mg/m3	2000 mg/m3
magnesium oxide	Magnesium oxide	22 mg/m3	22 mg/m3	130 mg/m3
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0.025 mg/m3	0.025 mg/m3	0.025 mg/m3
tetrasodium pyrophosphate	Sodium pyrophosphate decahydrate	4.3 mg/m3	48 mg/m3	290 mg/m3
tetrasodium pyrophosphate	Tetrasodium pyrophosphate	15 mg/m3	130 mg/m3	790 mg/m3

Ingredient	Original IDLH	Revised IDLH
diatomaceous earth, flux-calcined	Not Available	Not Available
cristobalite	N.E. mg/m3 / N.E. ppm	25 mg/m3
calcium sulfate	Not Available	Not Available
magnesium oxide	N.E. mg/m3 / N.E. ppm	750 mg/m3
silica crystalline - quartz	N.E. mg/m3 / N.E. ppm	50 mg/m3
tetrasodium pyrophosphate	Not Available	Not Available
Yellow Iron Oxide	Not Available	Not Available
D&C Red No.30 Aluminium Lake	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protection	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and.has to be observed when making a final choice. Suitability and durability of glove type is dependent on usage.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C. apron. ▸ Barrier cream.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
Dentsply Jeltrate Alginate Impression Material Not Available

Material	CPI

Respiratory protection

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AX P1 Air-line*	- -	AX PAPR-P1 -

Continued...

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

up to 50 x ES	Air-line**	AX P2	AX PAPR-P2
up to 100 x ES	-	AX P3	-
		Air-line*	-
100+ x ES	-	Air-line**	AX PAPR-P3

* - Negative pressure demand ** - Continuous flow
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Dry fluffy, may be coloured pale yellow or pink, powder with a spearmint odour; partly mixes with water.

Physical state	Divided Solid	**Relative density (Water = 1)**	0.3
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Applicable
pH (as supplied)	Not Available	**Decomposition temperature**	Not Applicable
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Available	**Taste**	Not Available
Evaporation rate	Not Applicable	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Applicable
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Applicable	**Gas group**	Not Available
Solubility in water (g/L)	Partly Miscible	**pH as a solution**	Not Available
Vapour density (Air = 1)	Not Applicable	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Continued...

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Not normally a hazard due to the physical form of product. The material is a physical irritant to the gastro-intestinal tract
Skin Contact	Four students received severe hand burns whilst making moulds of their hands with dental plaster substituted for Plaster of Paris. The dental plaster known as "Stone" was a special form of calcium sulfate hemihydrate containing alpha-hemihydrate crystals that provide high compression strength to the moulds. Beta-hemihydrate (normal Plaster of Paris) does not cause skin burns in similar circumstances. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

	TOXICITY	IRRITATION
Dentsply Jeltrate Alginate Impression Material	Not Available	Not Available
diatomaceous earth, flux-calcined	Oral (rat) LD50: >2000 mg/kg[1]	Not Available
cristobalite	Not Available	Not Available
calcium sulfate	Oral (rat) LD50: >1581 mg/kg[1]	Not Available
magnesium oxide	Not Available	Not Available
silica crystalline - quartz	Not Available	Nil reported
tetrasodium pyrophosphate	dermal (rat) LD50: >2000 mg/kg[1] Oral (rat) LD50: >300<2000 mg/kg>[1]	Not Available
Yellow Iron Oxide	Not Available	Not Available
D&C Red No.30 Aluminium Lake	Not Available	Not Available
Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's msds. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*	

DIATOMACEOUS EARTH, FLUX-CALCINED	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.
CRISTOBALITE	Inhalation (human) TCLo: 16 mppcf*/8H/17.9y-I * Millions of particles per cubic foot

Continued...

D&C RED NO.30 ALUMINIUM LAKE	No significant acute toxicological data identified in literature search.
Dentsply Jeltrate Alginate Impression Material, CALCIUM SULFATE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.
CRISTOBALITE, SILICA CRYSTALLINE - QUARTZ	**WARNING:** For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: **CARCINOGENIC TO HUMANS** The International Agency for Research on Cancer (IARC) has classified occupational exposures to **respirable** (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours.

Acute Toxicity	⊘	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	⊘	**Reproductivity**	⊘
Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	✔
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	✔
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✔ *– Data required to make classification available*
✘ *– Data available but does not fill the criteria for classification*
⊘ *– Data Not Available to make classification*

CMR STATUS

Not Applicable

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
calcium sulfate	HIGH	HIGH
tetrasodium pyrophosphate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
calcium sulfate	LOW (LogKOW = -2.2002)
tetrasodium pyrophosphate	LOW (LogKOW = -1.7388)

Mobility in soil

Ingredient	Mobility
calcium sulfate	LOW (KOC = 6.124)
tetrasodium pyrophosphate	LOW (KOC = 7.883)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	▸ Recycle wherever possible. ▸ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▸ Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material) ▸ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

diatomaceous earth, flux-calcined(91053-39-3) is found on the following regulatory lists	"Australia Exposure Standards","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","Australia Inventory of Chemical Substances (AICS)"
cristobalite(14464-46-1) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
calcium sulfate(10101-41-4) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)"
magnesium oxide(1309-48-4.) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
silica crystalline - quartz(14808-60-7) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","Australia Hazardous Substances Information System - Consolidated Lists"
tetrasodium pyrophosphate(7722-88-5) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"
Yellow Iron Oxide(None) is found on the following regulatory lists	"Not Applicable"
D&C Red No.30 Aluminium Lake(1342-90-1) is found on the following regulatory lists	"Australia Exposure Standards","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System - Consolidated Lists"

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
calcium sulfate	10101-41-4, 7778-18-9
silica crystalline - quartz	122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 14808-60-7, 70594-95-5, 87347-84-0

Continued...

tetrasodium pyrophosphate	13472-36-1, 7722-88-5

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.