

SAFETY DATA SHEETS

This SDS packet was issued with item:

074593950

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

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SAFETY DATA SHEET

Issue Date 26-Sept-2014

Revision Date 29-Mar-2016

Version 2

1. IDENTIFICATION

Product Identifier

Product Name JET XR POWDER

Other means of identification

SDS# 014

Product Code 4310, 4320, 4330

Recommended use of the chemical and restrictions on use

Recommended Use Fabrication of custom radiopaque diagnostic guides and stents

Details of the supplier of the safety data sheet

Supplier Address

Lang Dental Mfg. Co., Inc.
175 Messner Dr.
Wheeling, IL 60090
USA

Emergency telephone number

Company Phone Number 847-215-6622

Emergency Telephone (INFOTRAC) 352-323-3500 (International)
800-535-5053 (North America)

Authorized European Representative

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2. HAZARDS IDENTIFICATION

Classification

Skin sensitization

Category 1

Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.



Physical State Powder

Appearance Fine, white

Odor Faint odor in bulk

Precautionary Statements – Prevention

- P261 Avoid breathing dust, fumes, gas, mist, vapors or spray.
P264 Wash hands and exposed skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response

- P302+P352 IF ON SKIN: Wash with soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Precautionary Statements – Disposal

- P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight - %	Trade Secret
Polymer	9011-14-7	< 99	*
Barium sulfate	7727-43-7	< 50	*
Diethyl phthalate	84-66-2	< 20	*

*Specific chemical weight has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures**

Inhalation	Remove to fresh air. Get medical attention if discomfort persists.
Eye contact	Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation persists, get medical advice / attention.
Ingestion	Do NOT induce vomiting. Drink plenty of water or milk immediately. If vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately and provide an estimate of when and how much material was ingested.
Skin Contact	Wash with soap and water. If irritation persists, call a physician. Take off contaminated clothing and wash before reuse.

Most important symptoms and effects, both acute and delayed

Symptoms	Eyes, skin and respiratory tract may be irritated by gross overexposure to particulates. Eyes may have symptoms of redness, itching, irritation and watering from overexposure. Ingestion of large amounts may be irritating if product is swallowed; may cause nausea, headache, vomiting and/or diarrhea.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Provide general supportive measures and treat symptomatically. Persons with impaired lung function or asthma-like conditions may experience additional breathing difficulties.
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5. FIRE-FIGHTING MEASURES**Extinguishing Media**

Suitable:	Water, carbon dioxide (CO ₂), dry chemical
Unsuitable:	Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust in air producing a fire hazard and possible explosion hazard if exposed to ignition source.

Specific hazards arising from the chemical

For bulk size: Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.

Protective equipment and precautions for firefighters

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 Use personal protective equipment as required. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and clean-up

Method for containment Prevent further leakage or spillage if safe to do so.

Method for clean-up Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. Clean up in accordance with all applicable regulations. Wash all affected areas with plenty of warm water and soap.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in well-ventilated areas. Avoid contact with skin, eyes or clothing. Avoid breathing dust or fume. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed to prevent water absorption and contamination. Store in a dry, cool and well-ventilated place away from direct sunlight or other sources of light or intense heat. Preferable storage temperature not to exceed 35°C.

Packaging materials Keep in original container.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Barium sulfate 7727-43-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Diethyl phthalate 84-66-2	TWA: 5 mg/m ³	TWA: 5 mg/m ³ (vacated)	TWA: 5 mg/m ³

Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits. When working with large quantities of product, provide adequate ventilation (e.g. local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers.

Individual protection measures, such as personal protective equipment

Eye / face protection	Depending on the use of this product, safety glasses or goggles may be worn. If necessary, refer to US OSHA 29 CFR SS1910.133, Canadian standards or the European Standard EN 166. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.
Skin and body protection	If anticipated that prolonged and repeated skin contact will occur during use of this product, wear gloves for routine industrial use. If necessary, refer to US OSHA 29 CFR SS1910.138 or the appropriate standards of Canada or the EC member states.
Respiratory protection	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per US OSHA requirement in 29 CFR SS 1910.134, or applicable US state regulations, or the appropriate standards of Canada, its provinces, EC member states or Australia. VENTILATION: Local exhaust at processing equipment.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Powder	Odor	Faint odor in bulk
Appearance	Fine	Odor threshold	Not determined
Color	White		
Property	Values	Remarks / Method	
pH	Not determined		
Melting point / freezing point	Not determined		
Boiling point / boiling range	Not applicable		
Flash point	304°C / 580°F		
Evaporation rate	Not applicable		
Flammability (solid, gas)	Non-flammable		
Flammability limits in air			
Upper flammability limit	Not applicable		
Lower flammability limit	Not applicable		
Vapor pressure	Not applicable		
Vapor density	Not applicable		
Specific gravity	Not determined		
Water solubility	Insoluble in water		
Solubility in other solvents	Not determined		
Partition coefficient	Not determined		
Autoignition temperature	Not determined		
Decomposition temperature	Not determined		
Kinematic viscosity	Not determined		
Dynamic viscosity	Not determined		
Explosive properties	Not determined		
Oxidizing properties	Not determined		

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	Not reactive under normal conditions
<u>Chemical stability</u>	Stable under recommended storage conditions
<u>Possibility of hazardous reactions</u>	None under normal processing
Hazardous polymerization	Does not occur.

Conditions to avoid	Heating above 240°C / 464°F
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Methacrylate monomer, oxides of carbon when burned

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposures

Product information This product has not been tested on animals to obtain toxicology data.

Inhalation	May cause irritation of respiratory tract.
Eye contact	Avoid contact with eyes.
Skin contact	May cause temporary irritation on skin contact.
Ingestion	May cause gastrointestinal irritation, nausea, diarrhea and vomiting

Component information

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
Diethyl phthalate 84-66-2	8600 mg/kg (rat)	> 11200 mg/kg (rat)	-

Information on physical, chemical and toxicological effects

Symptoms See Section 4.

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

Carcinogenicity Not classifiable as a human carcinogen (IARC group 3)

Numerical measures of toxicity – Product Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity There is no specific data available for this product; however, very large releases may be harmful or fatal to overexposed aquatic life.

Chemical Name	Algae / aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethyl phthalate 84-66-2	23: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50; 23: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 static; 21: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50; 21: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 static; 42-255: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50; 2.11-4.29: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	17: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through; 16.8: 96 h <i>Pimephales promelas</i> mg/L LC50 static; 22: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through; 16.7: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static; 12: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through	-	36-74: 48 h <i>Daphnia magna</i> mg/L EC50; 86: 48 h <i>Daphnia magna</i> mg/L EC50 static

Persistence and degradability Not determined

Bioaccumulation Not determined

Mobility Not determined

Chemical Name	Partition coefficient
Diethyl Phthalate 84-66-2	2.35

Other adverse effects Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging For bulk only: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers.
Dispose of all empty containers properly in accordance with federal, state and local regulations.

Chemical Name	RCRA	RCRA-Basis for listing	RCRA-D Series Wastes	RCRA-U Series Wastes
Diethyl Phthalate 84-66-2	U088	Included in waste stream: F039	-	U088

Chemical Name	California Hazardous Waste Status
Barium Sulfate 7727-43-7	Toxic soluble

14. TRANSPORTATION INFORMATION

DOT Not regulated
IATA Not regulated
IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA For use in FDA regulated products only United States Toxic Substances Control Act, Section 8(b) Inventory

US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Barium sulfate	7727-43-7	< 50	1.0

SARA 311/312 Hazard Categories

Chemical Name	CWA-Reportable Quantities	CWA-Toxic Pollutants	CWA-Priority Pollutants	CWA-Hazardous Substances
Diethyl Phthalate 84-66-2	-	X	X	-

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ) Final
Diethyl Phthalate 84-66-2	1000 lb.	-	1000 lb. / 454 kg

US State Regulations

US State Right-to-know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Barium sulfate 7727-43-7	X	X	X
Diethyl Phthalate 84-66-2	X	X	X

16. OTHER INFORMATION

HMIS	Health Hazards	Flammability	Physical Hazards
	1	1	0

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Revision Note Update Section 1, 2

Disclaimer

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

End of Safety Data Sheet