



# SAFETY DATA SHEET

Issue Date 26-Sept-2014

Revision Date

Version 1

## 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)

## 2. HAZARDS IDENTIFICATION

**Classification** This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122); however, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product and should be retained for employees and other users of this product.

**Physical State** Powder      **Appearance** Fine, white      **Odor** Faint odor in bulk

**Hazards not otherwise classified (HNOC)** Not applicable

## 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

<b>Inhalation</b>	Remove to fresh air. Get medical attention if discomfort persists.
<b>Eye contact</b>	Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation persists, get medical advice / attention.
<b>Ingestion</b>	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.
<b>Skin Contact</b>	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**

<b>Symptoms</b>	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**

<b>Note to physicians</b>	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**

<b>Suitable:</b>	Water, carbon dioxide (CO <sub>2</sub> ), dry chemical
<b>Unsuitable:</b>	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**

<b>Personal precautions</b>	Use personal protective equipment as required. Remove any contaminated clothing and wash thoroughly before reuse.
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<b>Environmental precautions</b>	See Section 12 for additional ecological information.
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### **Methods and material for containment and clean-up**

<b>Method for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Method for clean-up</b>	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 <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Diethyl phthalate 84-66-2	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> (vacated)	TWA: 5 mg/m <sup>3</sup>

**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		

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
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.
<u>Conditions to avoid</u>	Heating above 240°C / 464°F
<u>Incompatible materials</u>	Strong oxidizing agents
<u>Hazardous decomposition products</u>	Methacrylate monomer, oxides of carbon when burned

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposures

<b>Product information</b>	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 Desmodesmus subspicatus mg/L EC50; 23: 72 h Desmodesmus subspicatus mg/L EC50 static; 21: 96 h Desmodesmus subspicatus mg/L EC50; 21: 96 h Desmodesmus subspicatus mg/L EC50 static; 42-255: 72 h Pseudokirchneriella subcapitata mg/L EC50; 2.11-4.29: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	17: 96 h Pimephales promelas mg/L LC50 flow-through; 16.8: 96 h Pimephales promelas mg/L LC50 static; 22: 96 h Lepomis macrochirus mg/L LC50 flow-through; 16.7: 96 h Lepomis macrochirus mg/L LC50 static; 12: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-	36-74: 48 h Daphnia magna mg/L EC50; 86: 48 h Daphnia magna 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

**Issue Date** 26-Sept-2014

**Revision Date**

**Revision Note**

### 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