

MATERIAL SAFETY DATA SHEET

Material Identity	
Product Name	CHITOSAN
CAS Number	9012-76-4
Molecular Formula	(C ₆ H ₁₁ O ₄ N) n
Molecular Weight	161.158×n

Fire Fighting Measures	
Flash Point	Not applicable
Explosive Limit	Not applicable
Autoignition Temperature	No data
Hazardous Products of Combustion	May form: carbon dioxide and carbon monoxide
Fire and Explosion Hazardous	Organic dusts can form explosive mixtures in air
Extinguishing Media	Regular foam, water fog, carbon dioxide, sand
Fire Fighting Instructions	Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.
NFPA Rating	Health – 1, Flammability – 0, Reactivity – 0

Physical and Chemical Properties	
Color	Light yellow flowing Powder
Odor	Characteristic
Boiling Point	No data
Vapor Pressure	No data
Specific Vapor Density	No data
Specific Gravity	No data
Liquid Density	No data
Percent Volatiles	No data
Evaporation Rate	No data

Hazards Identification according to (EG) Nr. 1907/2006	
Potential Health Effects	
Eye	Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.
Skin	May cause skin irritation. Symptoms may include redness, burning, and swelling of skin.
Swallowing	Swallowing this material is not likely to be harmful.

Inhalation	This material is a dust or may produce dust. Breathing small amounts of this material during normal handling is not likely to cause harmful effects, Breathing large amounts may be harmful.
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Symptoms of Exposure	No data
Target Organ Effects	No data
Developmental Information	There are no data available for assessing risk to the fetus from maternal exposure to this material.
Cancer Information	There is no information available.
Other Health Effects	This material can form dust which may cause skin or mucous membrane irritation. Symptoms may include redness, burning, and swelling. Although they may cause respiratory tract irritation, nuisance dusts do not form scar tissue or affect the structure of air spaces in the lungs. Their effects on the tissues are potentially reversible.
Primary Route(s) of Entry	Inhalation, Skin contact, Eye contact

First Aid Measures	
Eyes	If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention
Skin	Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
Swallowing	First aid is not normally required. If symptoms develop, seek medical attention.
Inhalation	If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.
Note to Physicians	No data

Handling and Storage	
Handling	Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash before reuse. Shower after work using plenty of soap and water
Storage	Store in a cool, dry place at under 30°C

Exposure Controls/Personal Protection	
Eye Protection	Wear safety glasses in compliance with OSHA regulations. (Consult your safety representative.)
Skin protection	Wear resistant gloves such as: latex

Respiratory Protections	3M Dust respirator No.8710 or 9900 is recommended.
Engineering Controls	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from know, suspected or adverse effects).

Stability and Reactivity	
Hazardous Polymerization	Product will not undergo hazardous polymerization.
Hazardous Decomposition	May form: carbon dioxide and carbon monoxide.
Chemical Stability	Stable
Incompatibility	No data

Toxicological Information	No data
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Ecological Information	No data
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Disposal consideration	
Waste Management Information	Dispose of with other normal, solid waste

NOTE: The information in this MSDS is offered in good faith, and is accurate to the best of our knowledge. No warranty is expressed or implied with respect to completeness or continuing accuracy of the information given here. User should satisfy themselves that they have all current data relevant to their particular use.

-The End -

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