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## MATERIAL SAFETY DATA SHEET

REQUIRED UNDER USDL SAFETY AND HEALTH REGULATIONS FOR SHIP REPAIRING, SHIPBUILDING, AND SHIPBREAKING (29CFR 1915-16-17)

### SECTION I

Manufacturer's Name <b>Hilmar Ingredients</b>	Emergency Telephone No. <b>(209) 667-6076</b>
Address <b>9001 North Lander Ave Hilmar, CA 95324 USA</b>	
Issued:	<b>8/10/2009</b>
Supercedes:	<b>7/8/2009</b>

PART CODE	CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
<b>300001</b>	4-O-β-D-Galactopyranosyl-D-glucose hydrate Lactose Monohydrate	<b>Hilmar™ 5000 Natural Lactose</b>
CHEMICAL FAMILY <b>Disaccharide Sugar</b>		FORMULA <b>C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> · H<sub>2</sub>O</b>
CAS No: <b>64044-51-5</b>		

### SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
<b>NOT APPLICABLE</b>		

### SECTION III - PHYSICAL DATA

BOILING POINT <b>NOT APPLICABLE</b>	Density 1.525@20°C
VAPOR PRESSURE (MM HG.) <b>NOT APPLICABLE</b>	PERCENT VOLATILE BY VOLUME (%) <b>0</b>
SOLUBILITY IN WATER <b>Soluble</b>	EVAPORATION RATE <b>NOT APPLICABLE</b>
APPEARANCE <b>Free flowing uniform white crystalline powder.</b>	

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (°C. UNLESS OTHERWISE SPECIFIED.) <b>NOT APPLICABLE</b>	METHOD USED	FLAMMABLE LIMITS <b>NOT APPLICABLE</b>	LEL	UEL
EXTINGUISHING MEDIA <b>Carbon Dioxide, Dry Chemicals</b>				
SPECIAL FIRE FIGHTING PROCEDURES <b>NOT APPLICABLE</b>				
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>As with any organic dust, may be explosive if mixed with air in critical proportions. Maintain normal good housekeeping.</b>				

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE <i>Not established.</i>	
EFFECTS OF OVEREXPOSURE  <i>Unknown. May be irritating to skin and eyes.</i>	
EMERGENCY AND FIRST AID PROCEDURES <b>Possible allergen to those allergic to bovine dairy products.</b> <i>Skin: Rinse with soap and water. Contact physician if irritation persists.</i> <i>Eyes: Flush copiously with water. Contact physician if irritation persists.</i>	

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	*	
INCOMPATIBILITY (MATERIALS TO AVOID) <i>Strong Oxidising agents</i>			
HAZARDOUS DECOMPOSITION PRODUCTS <i>Not Found</i>			
HAZARDOUS POLYMERIZATION	MAY OCCUR WILL NOT OCCUR	*	CONDITIONS TO AVOID

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  <i>Flush away with water.</i>	
WASTE DISPOSAL METHOD  <i>In accordance with local, state, and federal regulations</i>	

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Sp (SPECIFY TYPE) <i>Optional - NIOSH / MSHA approved respiratory mask</i>		
VENTILATION RECOMMENDED	<i>Local Exhaust usual</i> <i>Mechanical (General) usual</i>	SPECIAL OTHER
PROTECTIVE GLOVES		EYE PROTECTION <i>Splash Goggles</i>
OTHER PROTECTIVE EQUIPMENT		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING <b>Store under ambient warehouse conditions.</b> <i>Transport and store in clean, dry area.</i>	
OTHER PRECAUTIONS	

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