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MATERIAL SAFETY DATA SHEET REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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DATE UPDATED: JANUARY 06, 2016

SECTION 1 CHEMICAL IDENTIFICATION		
Product Name	Curcumin	
Product Code(s)	CB0346	
Recommended Use	For Laboratory Use Only Not for Human or Animal Drug Use	
Synonyms	Natural Yellow 3, (E,E)-1,7-bis(4-Hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5- dione, Diferulylmethane, Diferuloylmethane	

SECTION 2. ----- HAZARDS IDENTIFICATION -----

GHS - Classification

Classification	Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure (Category 3)
Signal Word	Warning
Hazard Statements	H319 - Causes serious eye irritation H315 - Causes skin irritation H335- May cause respiratory irritation
Precautionary Statements	 P261: Avoid breathing dust/spray/ fume/gas/ mist/ vapors. P264: wash skin thoroughly after handling P271: Use only outdoors or in well-ventilated area. P405: Store locked up. P280: Wear protective gloves/eye & face protection P302 + P352:If Swallowed: Call Poison Center or doctor/physician if you feel unwell P304 + P340: If inhaled: remove to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present & easy to do so. Continue Rinsing. P312: Call Poison Center or doctor/physician if you feel unwell P321: Specific measures (see supplemental first aid instructions) P332 + P313: If skin irritation occurs: consult physician P337+P313: If eye irritation occurs: consult physician

P362: Take off contaminated clothing and wash before reuse. P403 + P233: Store in a well ventilated place. Keep container tightly closed. P501: Dispose of contents/container to an approved waste disposal plant.

HMIS Classification:	Health hazard 2, Flammability 0, Physical hazards 0
NFPA Rating:	Health hazard 2, Fire 0, Reactivity hazard 0

Potential Health Effects

Eye: Risk of serious damage to eyes. **Skin:** Harmful in contact with skin. **Ingestion:** Harmful if swallowed. **Inhalation:** Harmful by inhalation.

SECTION 3. ---- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Curcumin	-	Not available	458-37-7	95-100	-

SECTION 4. ------ FIRST-AID MEASURES------

Eyes:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.		
Skin:	Rinse with plenty of soap & water and seek medical advice.		
Ingestion:	Do not induce vomiting without medical advice. Rinse with water. Consult physician.		
Inhalation:	Move to fresh air. Consult a physician.		
Notes to Physician:	Treat symptomatically and supportively.		
SECTION 5 General Information	 FIRE FIGHTING MEASURES As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. 		
Special Hazards Arising: Carbon oxides			
Extinguishing Media	a: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.		
SECTION 6 ACCIDENTAL RELEASE MEASURES			
General Information	: Use proper personal protective equipment as indicated in Section 8.		
Spill/Leaks:	Vacuum or sweep up material and place into a suitable disposal container.		
SECTION 7 Handling: Storage:	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Store in a cool, dry place. Store in a tightly closed container.		

SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Curcumin, 98+%(UV)	none listed	none listed	none listed

Personal Protective Equipment

Eyes:Wear chemical goggles.Skin:Wear appropriate protective gloves to prevent skin exposure.Clothing:Wear a chemical apron.Respirators:A NIOSH/MSHA approved air purifying dust or mist respirator or European Standard EN 149.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES ------

Physical State:	Powder
Flash Point:	Not available
Auto-ignition Temperature:	Not available.
Explosion Limits:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	12.72 – (Air=1.0)
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	Not available.
Melting Point:	175°C (347°F)
Solubility (in water):	Not available.
Density:	Not available.

SECTION 10. -----STABILITY AND REACTIVITY -----

Chemical Stability:Stable under normal temperatures and pressures.Conditions to Avoid:Incompatible materials.Incompatibilities with Other Materials:Strong oxidizing agents.Hazardous DecompositionProducts:
see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION ------

RTECS#:	MI5230000
LD50/LC50:	Oral, mouse & rat: LD50 = >2,000 mg/kg;
Carcinogenicity	: CAS# 458-37-7: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA
Epidemiology:	No information available.
Teratogenicity:	No information available.
Mutagenicity:	No data available.
Neurotoxicity:	No information available.
Other Studies:	Stomach irregularities based on human evidence.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Environmental Fate/Toxicity: No information available.

SECTION 13. ----- DISPOSAL CONSIDERATIONS ------

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations

Contaminated Packaging Dispose of in accordance with all federal, state and local regulations

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT (US)Not dangerous goodsIMDGNot dangerous goodsIATANot dangerous goods.

SECTION 15. ----- REGULATORY INFORMATION -----SARA311/312: Acute Health Hazard, chronic health hazard.
Section 302 (RQ & TPQ) None of the chemicals in this material have an RQ or TPQ.
Section 313 No chemicals are reportable under Section 313.
STATE CAS# 458-37-7 is not present on state lists from CA, MN, MA, FL.
Pennsylvania Right to Know: 1,7-Bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione CAS#458-37-7
New Jersey Right to Know: 1,7-Bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione CAS#458-37-7
California Prop.65 components: None of the chemicals are known to cause cancer, birth defects, or any other reproductive harm.

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

WGK (Water Danger/Protection) CAS# 458-37-7: No information available.

Canada - DSL/NDSL CAS# 458-37-7 is listed on Canada's DSL List.

Canada - WHMIS WHMIS: Not available.

Canadian Ingredient Disclosure List

SECTION 16 OTHER INFORMATION		
Issuing Date	13-Aug-2009	
Revision Date	06-Jan-2016	
Revision Note	No information available.	
Recommended Restrictions	No information available	

Disclaimer

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End of MSDS