



MATERIAL SAFETY DATA SHEET

10-6234 CORVELB #91 SAGE

MSDS Number: 149999-1-3

Effective: 8/15/03

Supersedes: 4/22/03

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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product ID: 10-6234 CORVELB #91 SAGE

Generic Description: Epoxy

Product Use: Coating Powder

For customer service/technical information, contact:

Morton Powder Coatings

Corporate Center, Number 5 Commerce Dr.

PO Box 15240

Reading PA 19612-5240

610-775-6600

MSDS prepared by:

Hazard Communications

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123 N. Wacker Drive

Chicago IL 60606-1743

312-807-3422

HAZARD RATINGS		
	HMIS	NFPA
Health	1 *	1
Fire	1	1
Reactivity	0	0
* = Chronic		

ChemTrec Emergency

1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

COMMON NAME	CAS #	Approximate % (w/w)
Titanium Dioxide	13463-67-7	20 - 30
Silica, amorphous	7631-86-9	1 - 5
Non-hazardous and other ingredients below reportable levels	Not Applicable	Balance

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: IF PRODUCT DOES NOT CONTAIN INGREDIENTS WITH ESTABLISHED AIRBORNE EXPOSURE LIMITS, THIS MATERIAL IS CONSIDERED A NUISANCE PARTICULATE. INGESTION MAY CAUSE PAIN, UPSET STOMACH, DIARRHEA. MAY CAUSE EYE IRRITATION. MAY CAUSE MECHANICAL EYE IRRITATION. DO NOT SWALLOW. See sections 3, 5, & 6.

PRIMARY ROUTES OF EXPOSURE: Eye. Skin. Inhalation (breathing).

EYE CONTACT: May cause slight to mild irritation. May cause mechanical irritation.

SKIN CONTACT: Incidental contact is not expected to cause irritation.

INHALATION (Breathing): If this product does not contain ingredients with established airborne exposure limits (see Exposure Guidelines in section 8), this material is considered a nuisance particulate. No effects are expected when exposures are maintained below the following limits: OSHA PEL - 5 mg/M3 (respirable particulates), 15 mg/M3 (total particulates); ACGIH TLV - 10 mg/M3 (total particulates).



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INGESTION (Swallowing): Not hazardous in normal industrial use. May cause pain and stomach upset (e.g., diarrhea).

TARGET ORGANS/CHRONIC EFFECTS: Eyes.

CONDITIONS AGGRAVATED BY EXPOSURE: Lungs and respiratory system.

CARCINOGENICITY:

	ACGIH	IARC	NTP	OSHA
Titanium Dioxide	A4	NO	NO	NO
Silica, amorphous	No	No	No	No

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

SKIN CONTACT: Immediately flush with water. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Professionally wash clothing and shoes before re-use.

INHALATION (Breathing): Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration.

INGESTION (Swallowing): Obtain immediate medical attention. Rinse mouth thoroughly with water, and give a cupful of water to drink. If vomiting occurs, repeat rinsing and give another cupful of water. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIANS: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

5. FIRE FIGHTING METHODS

Flash Point...: Not Applicable Method.....: Not Applicable
Explosive Lmts: LEL(%) 30 - 70 g/M3 UEL(%) Not Determined
Autoignition...: Not Determined

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Smoke, soot, and toxic/irritating fumes (i.e., carbon dioxide, carbon monoxide, etc.).

FIRE AND EXPLOSION HAZARDS: Bulk powder in storage or being transferred in closed containers has an HMIS/NFPA flammability rating of 1. If this material is transferred into a process or dispersed in a powder coating operation where concentrations can reach the explosive limit, the HMIS/NFPA flammability rating is 4. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and toxic gases may be generated during combustion or decomposition.

EXTINGUISHING MEDIA: SMALL FIRES: Foam, carbon dioxide, dry chemical, water spray. LARGE FIRES: Foam, water spray, or fog.

FIRE FIGHTING PROCEDURES/EQUIPMENT: Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH-approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES



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EVACUATION: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all sources of ignition.

CONTAINMENT: Safely stop discharge. Contain material, as necessary, with a dike or barrier. Stop material from contaminating soil, or from entering sewers or bodies of water.

CLEAN-UP/PERSONAL PROTECTION EQUIPMENT: Appropriate safety measures and protective equipment should be used.

COLLECTION AND DISPOSAL: Shovel or vacuum material and place in chemical waste containers. Use non-sparking tools and/or explosion-proof equipment. Dispose of according to applicable local, state and federal regulations.

REPORTING: Spills of this material in excess of a component's RQ must be reported to the National Response Center (1-800-424-8802) and to the appropriate state and local emergency response organizations. No regulated ingredients.

7. HANDLING AND STORAGE

STORAGE CONDITIONS: Store in cool, dry, well ventilated area away from heat, ignition sources, and direct sunlight. Keep containers tightly closed.

TRANSFER: No special precautions are needed. Follow good manufacturing and handling practices.

PERSONAL HYGIENE: wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. wash contaminated goggles, faceshield, and gloves. Professionally launder contaminated clothing before re-use.

EMPTY CONTAINER PRECAUTIONS: Attention! This container can be hazardous when empty. Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption or where skin contact can occur.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

ACGIH - TLV

Titanium Dioxide	10 mg/M3
Silica, amorphous	10 mg/M3 Total dust

OSHA - PEL

Titanium Dioxide	10 mg/M3
Silica, amorphous	6 mg/M3 Total dust

ENGINEERING CONTROLS/VENTILATION: Local exhaust ventilation is recommended when dusts can be released in excess of established airborne exposure limits (TLVs or PELs). Explosion-proof exhaust ventilation is recommended when excessive levels of dusts are generated. Ventilation equipment, baghouse and cyclone dust collection system should be explosion proof and grounded. Curing



ovens should be properly vented to prevent fumes from entering the workplace.

EYE PROTECTION: An eye wash facility should be readily available. Dust-proof goggles are recommended for use in areas containing particulate matter. Safety glasses are recommended for general industrial use.

SKIN PROTECTION: Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, consult glove manufacturer to determine the proper type for a specific operation.

RESPIRATORY PROTECTION: Avoid breathing dust. Industrial hygiene consultation is recommended because airborne exposure levels vary depending on the nature of the operation performed. Use NIOSH/MSHA approved respirator equipped with a HEPA filter or an appropriate respiratory device for particulates and fumes. Determine the appropriate type by consulting the respirator manufacturer. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. Respiratory protection programs must be in compliance with 29 CFR 1910.134.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance....: See Section 1
Physical State: Fine powder
pH.....: Not Applicable
VOC Material..: Not Determined
%Non-Vol(w/w)..: > 99
Odor.....: Slight, if any
Solubility....: Negligible
Freeze/Melt...: 104F - 176F 40C - 80C
Specific Grvty: Not Determined

NOTE: The physical data presented above are typical values and should not be construed as a specification.

ADDITIONAL INFORMATION: Measured volatiles are absorbed water (per EPA Reference Method 24 {ASTM D-2369-861}).

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizers. Acids.

11. TOXICITY INFORMATION

PRODUCT: Prolonged breathing of dust can lead to particulate deposition within the lungs.

COMPONENTS:

Titanium Dioxide: In a 2-year study in rats, an increase in benign and malignant lung tumors was observed at 250 mg/M3 respirable dust level. This level is 50 times the current occupational exposure level and is not expected to correlate to human exposures.

Silica, amorphous: Repeated exposure to dusts can lead to particulate deposition in the lungs



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(i.e., pneumoconiosis).

Oral LD50 Rat > 3,000 mg/kg

12. ECOLOGICAL INFORMATION

No data are available on this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with all local, state, and federal regulations.

GENERAL STATEMENTS: Federal regulations may apply to empty container. State and/or local regulations may be different.

GENERAL RECOMMENDATIONS: Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) recycle-or rework, if feasible; (2) incinerate at an authorized facility; or (3) treat at an acceptable waste treatment facility.

SPECIAL INSTRUCTIONS: Be sure to contact the appropriate government environmental agencies if further guidance is required.

14. TRANSPORT INFORMATION

Weight (lb) Shipping Name 49 CFR IATA IMO
Non-regulated Y Y Y

DOT Label.....: Not applicable UN/NA Id Num..: Not Applicable
DOT Label No..: L199

15. REGULATORY INFORMATION

FEDERAL:

SARA Title III - Section 311/312 - Hazard Categories:
N- Fire Hazard
N- Sudden Release of Pressure Hazard
N- Reactivity Hazard
N- Immediate (acute) Health Hazard
Y- Delayed (chronic) Health Hazard

Ozone-Depleting Chemicals - No regulated ingredients.

SARA Section 302 Extremely Hazardous Mat - No regulated ingredients.

SARA Section 313 Toxic Chemicals - No regulated ingredients.

TSCA Section 12(b) Export Notification
Polychlorinated biphenyls

STATE RIGHT-TO-KNOW:

Pennsylvania - New Jersey R-T-K
Titanium Dioxide 13463-67-7 20 - 30
Silica, amorphous 7631-86-9 1 - 5
Non-hazardous trade secret ingredient(s) Proprietary Balance

California - California Proposition 65 - No regulated ingredients.



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CONEG - No data available.

CANADA:

This is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Class D Division 2 Sub-division B

CEPA - NPRI - No regulated ingredients.

16. OTHER INFORMATION

USERS RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

End of Material Safety Data Sheet