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Ladd Catalog Numbers:
14510, 14511

SAFETY DATA SHEET

Product: 590
Revision Date: 5/8/2023

1. MATERIAL IDENTIFICATION

Product Name: Crystalbond 590
Product Description: Solid Stick, Odorless
Product Use: Temporary Mounting Adhesive
Manufacturer: Aremco Products, Inc.
707-B Executive Blvd.
Valley Cottage, NY 10989
Telephone: 845-268-0039
Emergency Phone: 845-268-0039 or Infotrac (24/7) 800-535-5053

2. HAZARDS IDENTIFICATION

GHS Classification:
Non-Hazardous

GHS Label Elements:
None

GHS Signal Word:
None

GHS Hazard Determining Component:
None

GHS Hazard Statements for Health Hazards:
H320 Causes eye irritation

GHS Precautionary Statements - Prevention:
P264 Wash hands and face thoroughly after handling

GHS Precautionary Statements - Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

GHS Storage/Disposal:
P501 Dispose in accordance with local, regional, national or international regulations

3. COMPOSITION

Chemical Name	CAS No.	EINECS No	Concentration	GHS Product Identifier
Barium sulfate, natural	7727-43-7	231-784-4	30.0%	H320 Eye Irritation, Cat 2B

4. FIRST AID MEASURES

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes. Hot fluid product: Cool burns with plenty of low-pressure water and get immediate medical attention.

Skin Exposure:

Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use. Hot Fluid: Immediately cool skin with water and cold packs for at least 15 minutes. Do not put ice directly on skin. Do not attempt to remove solidified wax from the skin as severe tissue damage may result. Get immediate medical attention.

Inhalation:

Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Medical Conditions Possibly Aggravated by Exposure:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams are preferred. General purpose synthetic foams or protein foams may function, but will be less effective.

Extinguishing Media to Avoid.

Do not use direct water stream. May spread fire.

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to combustion products of varying composition that may be toxic and/or irritating. Combustion products may include and are not limited to carbon monoxide and carbon dioxide.

Unusual Fire & Explosion Hazards:

Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Firefighting Procedures:

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection:

Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.

Spill Cleanup:

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Contain spilled material if possible. Absorb with materials such as sand or dirt. Do not use water for cleanup.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Avoid breathing dust and vapors generated when melted. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

Storage:

Store in an area that is cool, dry, and well ventilated. Water contamination should be avoided. Store in clean plastic or steel containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	CAS No.	EC No.	TLV (mg/m ³)	PEL (mg/m ³)
Barium sulfate, Natural	7727-43-7	231-784-4	10	10

Engineering Controls: Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

Respiratory Protection: Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust and mist respirator is required.

Skin Protection: Wear body-covering protective clothing and gloves

Eye Protection: Wear chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid Sticks
Color: White
Odor: Mild
pH: 6.5
Specific Gravity, g/cc Not determined
Water Solubility: Soluble
Melting Point: 110-120 °F
Boiling Point: > 480 °F
Flash Point: 250 °C (482 °F)
Flammable Limits: Not determined.
Vapor Pressure: < 0.01 mm Hg @ 20 °C
Vapor Density (air=1): > 1
VOC Content, g/l: N/D

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under all conditions of use and storage.

Conditions to Avoid: Avoid excessive heat for prolonged periods of time can cause product to decompose.

Incompatible Materials: Avoid contact with strong acids, strong bases and strong oxidizers.

Hazardous Decomposition Products: Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning. Heating in air may produce irritating aldehydes, acids, and ketones.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data: Ingestion: Typical for this family of materials - LD50, Rat > 8,000 mg/kg
Dermal: LD50 has not been determined
Inhalation: LC50 has not determined

Eye Damage/ Irritation: May cause slight temporary eye irritation. Corneal injury is unlikely.

Skin Corrosion/Irritation: Prolonged contact may cause slight skin irritation with local redness.

Sensitization: Skin: Did not cause allergic skin reactions when tested in humans.
Respiratory: No relevant data found.

Repeated Dose Toxicity: For this family of materials, in animals, effects have been reported on the liver.

Chronic Toxicity & Carcinogenicity: No relevant data found.

Developmental Toxicity: For this family of materials, did not cause birth defects or any other fetal effects in lab animals.

Genetic Toxicology: For this family of materials, in vitro genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION

Toxicity: For this family of materials, material is slightly toxic to aquatic organisms on an acute basis with an LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested.

Fish Acute & Prolonged Toxicity:
LC50, Fathead Minnow (*Pimephales Promelas*), static, 96 h > 60 mg/l

Aquatic invertebrate Acute Toxicity:
LC50, water flea *Daphnia Magna*, 48 h > 1,000 mg/l

Toxicity to Microorganisms:
IC50; bacteria, 16 h: 1,000 – 2,400 mg/l

Persistence & Degradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable, however, these results do not necessarily mean that material is not biodegradable under environmental conditions.

Chemical Oxygen Demand: 2.0 mg/mg
Theoretical Oxygen Demand: 1.0-1.96 mg/mg

Bioaccumulative Potential: No relevant data found.

Mobility in Soil: No relevant data found

13. DISPOSAL CONSIDERATIONS

Disposal Method: Dispose in accordance with federal, state and local regulations and permits.

14. TRANSPORTATION INFORMATION

DOT UN Status: The material is not a regulated hazardous material for transportation.

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients of this material are listed on the TSCA inventory.

CERCLA: No CERCLA reportable quantity has been established for this material.

SARA Title III

Sections 302, 304, 313: This product does not contain any substances reportable under these sections.

Sections 311, 312:

Hazard Classes	Yes/No
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	No
Delayed Hazard	No

California Proposition 65 (Safe Drinking Water & Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical known to the State of California to cause cancer:

Component	CAS #	Amount
1,4-Dioxane	123-91-1	<= 20.0 ppm

International Inventory	Status
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

16. OTHER INFORMATION

NFPA Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	
HMIS Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	

Key Legend Information

ACGIH	American Conference of Governmental Industrial Hygienists
ARD	International Agency for Research on Cancer
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
DSL	Domestic Substance List
HMIS	Hazardous Materials Identification System
ND	Not Determined
NE	Not Established
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments & Reauthorization Act
SARA Title III	Emergency Planning & Community Right to Know Act
SARA Section 302	Extremely Hazardous Substances
SARA Section 304	Emergency Release
SARA Section 311	MSDS/List of Chemicals & Hazardous Inventory
SARA Section 312	Emergency & Hazardous Inventory
SARA Section 313	Toxic Chemicals & Release Reporting
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

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