Safety Data Sheet (SDS)

SDS Preparation Date: 7/15/2024
Echo Eliminator

1. IDENTIFICATION

1.1 Product identifier

Echo Eliminator

1.2 Other means of identification

Bonded Acoustical Cotton (B.A.C.)

1.3 Recommended use

Acoustic panel and insulation

1.4 Company Contact

Acoustical Surfaces Inc.
123 Columbia Court N.
Chaska, MN 55318
USA
+1 (952) 448-5300

1.5 Emergency phone number

+1 (952) 448-5300

2. HAZARD IDENTIFICATION

2.1 Classification of the mixture/substance

Eye Irritation Category 2B

2.2 Statements

Warning

H320	Causes eye irritation
P264	Wash hands thoroughly after handling.

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.

2.3 Other hazards

Name: Describe here.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Chemical Name	CAS Number & Unique Identifiers	Concentration % or Concentration Range %
Recycled Cotton (Cellulose)	65996-61-4	50-90%
Polyethylene terephthalate (PET)	25038-59-9	10-50%
Boric acid*	10043-35-3	5-10%
Ammonium Sulfate	7783-20-2	5-10%

*May not be present in final product

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation: The compound is not likely to be hazardous by inhalation exposure during normal use. If large amounts of dust are inhaled, remove affected person to fresh air. Consult a physician if breathing difficulty occurs.

Skin contact: Wash with soap and water after handling. If skin irritation develops, consult a physician.

Eye contact: In case of contact with dust or particles, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

Ingestion: No specific intervention is indicated, as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media

Any fire extinguishing media, including Water Spray, Foam, Dry Chemical, CO_2.

5.2 Specific hazards arising from the mixture/substance

Wear self-contained breathing apparatus (pressure demand MSHA/NIOSH approved, or equivalent) and full protective gear.

5.3 Special protective equipment and precautions for fire-fighters

None, material is not flammable, combustible, or explosive. The material itself is a flame retardant.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Personal Precautions: None.

Protective Equipment: None.

Emergency Procedures: None.

6.2 Methods and materials for containment and cleaning up

Methods for cleaning up: Dispose of in accordance with applicable local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling advice: No special handling precautions are required.

Technical measures: No technical measures are required.

Technical precautions: No technical precautions are required.

7.2 Conditions for safe storage, including any incompatibilities

Dry, indoor storage is recommended.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits

Chemical Name	As	Exposure Limits	Type	References
PNOR*	total	15 mg/m^3	TWA	OSHA PEL
		10 mg/m^3	TWA	Cal/OSHA PEL
	resp.	5 mg/m^3	TWA	(Cal/)OSHA PEL

* In 29 CFR 1000, all inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

8.2 Appropriate engineering controls

Engineering measures: Good ventilation.

8.3 Individual protection measures

Personal protection: No special control or handling procedures are required.

Respiratory equipment: No special control or handling procedures are required.

Hand protection: No special control or handling procedures are required.

Eye protection: No special control or handling procedures are required.

Skin protection: No special control or handling procedures are required.

Hygiene measures: No special control or handling procedures are required.

Environmental Exposure Controls:

No special control or handling procedures are required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Blue, black, beige, white, or gray fiber.

9.2 Odor
Not applicable.

9.3 Odor threshold
Not applicable.

9.4 pH
7.3 (as supplied).

9.5 Melting point/freezing point
Not applicable.

9.6 Initial boiling point and boiling range
Not established.

9.7 Flash point
Not applicable.

9.8 Evaporation rate
Not applicable.

9.9 Flammability (solid/gas)
Not applicable.

9.10 Upper/lower flammability or explosive limits
Not applicable.

9.11 Vapor pressure
Not applicable.

9.12 Vapor density
Negligible at 20°C.

9.13 Relative density
Not applicable.

9.14 Solubility
Insoluble.

9.15 Partition coefficient: n-octanol/water

Not applicable.

9.16 Auto-ignition temperature

Not applicable, not self-heating.

9.17 Decomposition temperature

Not applicable.

9.18 Viscosity

Not applicable.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable and non-reactive under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Non-reactive under normal conditions.

10.4 Conditions to avoid (e.g., static discharge, shock, or vibration)

High temperature (above 80°C) for an extended time.

10.5 Incompatible materials

Strong acids and bases.

10.6 Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on the likely routes of exposure

Inhalation: Most significant route of exposure in occupational and other settings.

Skin contact: Not usually a concern as cellulose and boron compounds are not absorbed through intact skin.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Bonded acoustical cotton panel is not intended for ingestion. Small amounts swallowed accidentally are not likely to cause effects; swallowing larger amounts may cause gastrointestinal symptoms. Bonded acoustical cotton panel does not cause irritation to intact skin in normal industrial use. Prolonged exposure to dust levels more than regulatory limits should always be avoided.

11.3 Delayed and immediate effects and chronic effects from short- and long-term exposure

Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to cellulose, boric acid, PET, or ammonium sulfate.

11.4 Numerical measures of toxicity (such as acute toxicity estimates)

Acute Toxicity (Oral): LD_{50} (rat)
Cellulose: >5,000 mg/kg of body weight
Boric acid: 2,550 mg/kg of body weight
Polyethylene terephthalate: No information found.
Ammonium Sulfate: >5,000 mg/kg of body weight

Acute Toxicity (Dermal):LD_{50} (rabbit)
Cellulose: >2,000 mg/kg of body weight
Boric acid: >2,000 mg/kg of body weight
Polyethylene terephthalate: No information found.
Ammonium Sulfate: >2,000 mg/kg of body weight

Acute Toxicity (Inhalation): LC_{50} (rat)
Cellulose: >5.8 mg/L
Boric acid: >2.01 mg/L
Polyethylene terephthalate: No information found.
Ammonium Sulfate: >5.8 mg/L

Skin Corrosion/Irritation:
Cellulose: Nonirritating, nonsensitizing.
Boric acid: Nonirritating, nonsensitizing.
Polyethylene terephthalate: Nonirritating.
Ammonium Sulfate: Nonirritating, nonsensitizing.

Serious eye damage/irritation:	**Cellulose:** No information found. **Boric acid:** Nonirritating **Polyethylene terephthalate:** Mechanical irritation only. **Ammonium Sulfate:** No information found.
Chronic Health Hazards:	No chronic effects from cellulose, PET, boric acid, or ammonium sulfate have been reported in the literature. Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to inorganic borates and sodium borate dust.
Carcinogenicity:	Cellulose, boric acid, PET, and ammonium sulfate are not listed as known or suspected carcinogens by OSHA, ACGIH, NTP, or IARC.
Reproductive Effects:	No reproductive effects from PET or ammonium sulfate were found in the literature. Borate-treated cellulose insulation contains boric acid and cellulose fiber. Borate---treated cellulose insulation was tested for purposes of hazard classification under the Occupational Safety and Health Administration's 2012 Hazard Communication Standard. In a study conducted under OECD Guideline 414, there were no developmental effects in rats exposed to up to 270 mg/m^3 (the highest exposure tested). In workers chronically exposed to high levels of borates for several years by way of inhalation, food, and drinking water, there was a clear absence of any reproductive effects.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available)

No information found for Cellulose or Polyethylene terephthalate (PET).

Boron:

No information specific to boric acid was found in the literature. The following information is based on other boron compounds and normalized for boron.
LC_{50} (Water flea, *D. magna*): 101.2 mg/L (48-hr)
NOEC (Water flea, *D. magna*): 5.7 mg/L (21-d)
LC_{50} (Rainbow trout, *O. mykiss*): 351.7 mg boron/L (96-hr)
LC_{50} (Bluegill, *L. macrochirus*): 4.6 mg boron/L (24-hr)

Ammonium Sulfate:

LC_{50} (Water flea, *D. magna*): 423 mg/L (25-hr)
LC_{50} (Water flea, *D. magna*): >100 mg/L (96-hr)
LC_{50} (Rainbow trout, *O. mykiss*): 1.56 mg/L (24-hr)
LC_{50} (Bluegill, *L. macrochirus*): 36.7 mg/L (96-hr)

Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants. It can be harmful to boron-sensitive plants in higher quantities. Care should be taken to minimize the amount of borate product released to the environment.

12.2 Persistence and degradability
Biodegradation is not an applicable endpoint since the product is an inorganic substance.

12.3 Bioaccumulative potential
This product will undergo hydrolysis in water to form undissociated boric acid. Boric acid will not biomagnify through the food chain. Octanol/Water partition coefficient: Log Pow = -0.7570 @ 25°C (based on boric acid).

12.4 Mobility in soil
The product is soluble in water and is leachable through normal soil. Adsorption to soils or sediments is insignificant.

12.5 Other adverse effects (such as hazardous to the ozone layer)
None.

13. DISPOSAL CONSIDERATIONS

13.1 Waste residue, safe handling, and methods of disposal, including disposal of contaminated packaging

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Materials can be reused for appropriate applications. Please contact ASI for further information.

14. TRANSPORT INFORMATION

14.1 UN number

Not available.

14.2 UN proper shipping name

Not available.

14.3 Transport hazard class

Not available.

14.4 Environmental hazards (e.g., Marine pollutant (Yes/No))

Not available.

14.5 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not available.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question

Generally, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

Regulations (overview):	The data in this section is not intended to be exhaustive; only select regulations are represented.
TSCA No.:	Cotton panel does not appear on the EPA TSCA inventory list. Boric acid does appear on the EPA TSCA inventory list (10043-35-3).
RCRA:	Cotton panel is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.).
Superfund: CERCLA/SARA:	Cotton panel is not listed under CERCLA (the Comprehensive Environmental Response Compensation and Liability Act) or its 1986 amendments, SARA (the Superfund Amendments and Reauthorization Act), including substances listed under Section 313 of SARA, Toxic Chemicals 42 USC 11023, 40 CFR 372.65; Section 302 of SARA, Extremely Hazardous Substances, 42 USC 11002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.
Safe Drinking Water Act:	Cotton panel is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq. Consult state and local regulations for possible water quality advisories regarding boron. Clean Water Act (Federal Water Pollution Control Act): 33 USC 1251 et seq. a.) Cotton panel is not itself a discharge covered by any water quality criteria of Section 304 if the CWA, 33 USC 1314 b.) It is not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 12 c.) It is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.
OSHA/Cal OSHA:	This SDS document meets the requirements of both OSHA (29 CFR 1910.1200) and Cal OSHA (Title 8 CCR 5194(g)) hazard communication standards. Refer to Section 8 Exposure Control/Personal Protection for regulatory exposure limits.

16. OTHER INFORMATION

Date of SDS Preparation: Monday, July 15, 2024

For restrictions on use see section 15.

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.