



**ENDURAFLAKE
TOP COAT
PART B
RESIN**

Safety Data Sheet

Revision date: 2015/10/07

EW INDUSTRIES

Box 336, Imperial, SK Canada S0G 2J0 1-888-799-3960

www.SierraStone.com

1. Identification

Product identifier used on the label

ENDURAFLAKE TOP COAT - PART B - RESIN

Recommended use of the chemical and restriction on use:

Industrial Maintenance Coating, Floor Coating, Waterproofing/Concrete Masonry Sealer

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
EW Industries Ltd
Box 336
Imperial, SK Canada
S0G 2J0

1-888-799-3960

Emergency telephone number: CHEMTREC: 1-800-424-9300

Other means of identification

Chemical family: Modified Aspartic Ester

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Classification of the product

Serious Eye Damage: Category 1
Skin Corrosive: Category 1
Skin Sensitization: Category 1
Specific Target Organ Toxicity, Single Exposure, Category 3
Specific Target Organ Toxicity, Repeated Exposure – Category 2
Hazardous to the aquatic environment, short term, acute, Category 3
Hazardous to the aquatic environment, long term, acute, Category 3
Flammable Liquid: Category 3

Label Elements

Pictogram:



Signal Word: Danger

Hazard Statement:

Flammable liquid and vapor. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

May cause allergic skin reaction.

Causes severe skin burns and eye damage.

Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting. Use only non-sparking tools.

Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection.

Do not breathe vapor/fumes/spray. Get medical attention if you feel unwell. Use only outdoors or in a well-ventilated area. Do not breathe vapors, mist, or spray. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

IN CASE OF FIRE: Use foam, carbon dioxide, water fog, or spray to extinguish.

IF SWALLOWED: Rinse mouth. Do not induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rise skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Immediately call a POISON CENTER or doctor/physician.
If skin irritation or rash occurs: Get medical advice/attention.
Store in a well-ventilated place. Store locked up.
Dispose of contents/container in accordance with Local, State, Federal, and Provincial regulations.

Emergency Overview:

DANGER! Flammable. Corrosive. Harmful if inhaled or swallowed. Irritant.

Route of Exposure:

Eyes. Skin. Respiratory system. Digestive System.

Potential Health Effects:

Eye: Corrosive. Will cause eye burns, permanent tissue damage, and blindness.

Skin: Contact causes severe skin irritation and possible burns. May cause permanent skin damage. Allergic reactions are possible.

May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation: May cause severe respiratory system irritation. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.

Ingestion: Harmful if swallowed. Corrosive to gastrointestinal tract.

Chronic Health Effects:

Prolonged skin contact causes burns. Repeated or prolonged inhalation may cause toxic effects.

Target Organs:

Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions:

Individuals with pre-existing skin disorders, asthma, allergies, or known sensitization may be more susceptible to the effects of this product.

3. Composition / Information on Ingredients

Components	CAS Number	Concentration (Weight)
Aspartic Ester	1136210-32-7	< 50 %
Aspartic Ester	1136210-30-5	< 30 %
Aldimine	54914-37-3	< 30 %
Benzene, 1-Chloro-4 (Trifluoromethyl)	98-56-6	< 30 %
Proprietary	Proprietary	< 20 %



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. Immediately remove contaminated clothing and shoes. Wash clothing before reuse. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention if irritation develops. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed:

Acute: May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash. May cause skin irritation with symptoms of reddening, itching, and swelling. May cause eye irritation with symptoms of reddening, tearing, stinging, and swelling.

Potential health effects:

Routes of entry: Ingestion, inhalation, skin, eyes.

Target organs: Central Nervous System, kidneys, liver.

Irritancy: May be irritating to eyes, skin and respiratory tract .

Sensitizing capability: None known.

Reproductive effects: None known.

Cancer information: This product does not contain any substances at > 0.1 weight % that are considered by OSHA, NTP, IARC or AGCIH to be "probable" or "suspected" carcinogens.



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Short term exposure (acute):

Inhalation: Irritating to mucous membranes.

Eyes: Liquid is a severe eye irritant and can cause burns.

Skin: May cause burns.

Ingestion: May cause burns to gastrointestinal tract. May be harmful by ingestion.

Repeated exposure (chronic).

Prolonged or repeated breathing or swallowing of large amounts may cause liver and kidney damage based on animal studies.

See Inhalation and Ingestion.

Synergistic materials: None known.

Medical conditions aggravated by exposure: None known.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Preferable: Alcohol resistant foam. Dry chemical, Water spray, CO₂.

Unsuitable extinguishing media: Solid water jet ineffective as extinguishing medium.

Special hazards arising from the substance or mixture

Hazards during fire-fighting: harmful vapors.

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Evacuate all unnecessary personnel. Shut down motors, pumps, electrical service and eliminate all sources of ignition. Use water spray to keep fire exposed containers cool to avoid pressure buildup. Wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus and full protective clothing.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

can accumulate in low areas.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

General information on handling:

Do not taste or swallow.

Do not get in eyes, on skin, or on clothing.

Do not breathe vapor or mist. Wear NIOSH/MSHA approved respiratory protection if there is potential for exposure above the exposure limits.

Keep away from heat, sparks, pilot lights, welding operations, and open flame.

No smoking.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Container hazardous when empty.

Follow label warnings even after container is emptied.

RESIDUAL VAPORS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Improper disposal or reuse of this container may be dangerous and/or illegal.

Emptied container retains vapor and product residue.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place away from heat sources, direct sunlight.

Storage stability:

May react with oxygen to form peroxides.

Storage Incompatibility – General.

Store separate from:

Strong Acids, Strong Oxidizing Agents, Strong Bases, Reducing Agents.



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Storage Temperature: 10 – 30 C

Storage Area:

Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area.

Packaging materials:

SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminum. iron. copper. nickel. bronze. glass.

MATERIAL TO AVOID: synthetic material.

8. Exposure Controls/Personal Protection

Exposure Limits

Component	Weight Percent	OSHA	ACGIH TLV	Corporate Exposure Limit (CEL)
Benzene, 1-Chloro-4 (Trifluoromethyl)	< 30%	None Established	None Established	25 ppm – 8 hr TWA

Engineering Measures

Provide readily accessible eye wash stations and safety showers.

General room ventilation plus local exhaust at points of emission should be used to maintain levels of airborne contaminants as low as feasibly possible and below exposure limits.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Do not exceed the maximum use concentration for the respirator face piece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full face piece pressure demand self-contained breathing apparatus (SCBA) or a full face piece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

General safety and hygiene measures:



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid inhalation of mists. Contact with eyes and skin must be avoided.

9. Physical and Chemical Properties

Form:	liquid
Odor:	Sweet naphthalenic odor
Color:	Clear-Amber, Cloudy
pH value:	N/A
Melting point:	No data available
Boiling point:	145°C (estimated)
Flash point:	45°C (estimated)
Flammability:	No data available
Lower explosion limit:	Not applicable
Upper explosion limit:	Not applicable
Vapor pressure:	Not applicable
Density:	1.05 g/cm ³ at 20 °C
Viscosity, Dynamic	700 CPS
Solubility in Water	Hydrolyzes
Evaporation rate:	Not determined
Volatile Organic Compounds:	< 5 g/l (per AQMD)

10. Stability and Reactivity

Chemical Stability:

This is not a stable product. It reacts with moist air.

Conditions to avoid:

Avoid moisture. Avoid sources of ignition.

Materials to avoid:

Strong Acids
Strong Oxidizing Agents
Strong Bases
Reducing Agents
May react with oxygen to form peroxides.

Hazardous decomposition products:



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Thermal decomposition giving flammable and toxic products:
Carbon oxides
Hazardous organic compounds
Isophorone diamine
Isobutyraldehyde

11. Toxicological information

For Aspartic Ester:

Likely Routes of Exposure: Skin Contact, Eye Contact, Inhalation, Ingestion

Health Effects and Symptoms:

Acute: May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash. May cause skin irritation with symptoms of reddening, itching, and swelling. May cause eye irritations with symptoms of reddening, tearing, stinging, and swelling.

Chronic: Not expected to cause adverse chronic health effects.

Acute Oral Toxicity:

Acute toxicity estimate: > 5000 mg/kg (calculation method)

LD 50 > 2000 mg/kg (rat) (Directive 67/548/EEC, Annex V, B.1.)

Acute Inhalation Toxicity: LC 50 ? 4.224 mg/l, 4 h (rat, male/female) (OECD Test Guideline 403)

Acute Dermal Toxicity: LD50 ? 2000 mg/kg (rat, male/female) (Directive 67/548/EEC, Annex V, B.3).

Skin Irritation: rabbit, OECD Test Guideline 404, slight irritant

Eye Irritation: rabbit, OECD Test Guideline 405, non-irritating

Sensitization: Skin sensitization according to Magnusson/Kligmann (maximizing test): In the guinea pig, the product has a sensitizing effect (OECD Test Guideline 406)

Maximization Test (GPMT): sensitizer (Guinea pig, OECD Test Guideline 406)

Repeated Dose Toxicity: 29 days, oral: NOAEL: 1,000 mg/kg (Rat, Male/Female, daily)

Mutagenicity: Genetic toxicity in vitro: Ames: negative (salmonella typhimurium, metabolic activation: with/without)

Genetic toxicity in vivo: Micronucleus test: negative (Mouse, Male/Female, intraperitoneal)

Toxicity to Reproduction/Fertility: Two generation study, oral, daily, (Rat, Male/Female) NOAEL (parental): 1,000 mg/kg. NOAEL (F1): 1,000 mg/kg, NOAEL (F2): 1,000 mg/kg

Developmental Toxicity/Teratogenicity: Rat, Female, oral, NOAEL (teratogenicity): 1,000 mg/kg, NOAEL (maternal): 1,000 mg/kg

For Benzene, 1-Chloro-4 (Trifluoromethyl):

Acute toxicity

LD50 Oral – Rat - 13,000 mg/kg

LD50 Oral – Rat - 5,546 mg/kg



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

LC50 Inhalation – Rat - 4 h - > 32.03 mg/l
LD50 Dermal – Rabbit - > 3,300 mg/kg
No data available

Skin corrosion/irritation

Skin – Rabbit Result: No skin irritation

Serious eye damage/eye irritation

Eyes – Rabbit Result: No eye irritation

Respiratory or skin sensitisation

in vivo assay - Mouse

May cause sensitisation by skin contact.(OECD Test Guideline 429)

Germ cell mutagenicity

Ames test: Salmonella typhimurium

Result: Not mutagenic in Ames Test

Chromosome aberration test in vitro

Chinese hamster ovary cells

Result: negative

Carcinogenicity

Carcinogenicity: No carcinogenic substances as defined by IARC, NTP, and/or OSHA

12. Ecological Information

Ecological Data for Aspartic Ester:

Acute toxicity to aquatic invertebrates

NOEC (reproduction): 0.013 mg/l (Daphnia magna (Water Flea), 21 d)

NOEC (mortality): 0.12 mg/l (Daphnia magna (Water Flea), 21 d)

Toxicity to Aquatic Plants: EC50: 113 mg/l (Green Algae (Scenedesmus subspicatus), 72 h)

Additional Ecotoxicological Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ecological Data for Benzene, 1-Chloro-4 (Trifluoromethyl):

Toxicity:

Toxicity to fish	Semi-static test LC-50 – Danio rerio (Zebra Fish) – 3 mg/l – 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	EC 50 – Daphnia magna (Water Flea) – 2 mg/l – 48 h (OECD Test Guideline 202)
Toxicity to algae	NOEC – Pseudokirchneriella subcapitata (Green Algae) – 0.41 mg/l – 72 h (OECD Test Guideline 201)



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Biodegradability	Result: - According to the results of tests of biodegradability this product is not readily biodegradable. (OECD Test Guideline 301D)
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Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects

13. Disposal Considerations

Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Proper Shipping Name: Amines, Flammable, Corrosive, N.O.S.. or Polyamines, Flammable, Corrosive, N.O.S.

Hazard Class or Division: 3

UN/NA Number: 2733

Packaging Group: III

Hazard Label(s): Warning, Flammable Liquid, Corrosive Liquid

Hazard Placards(s): Flammable, Corrosive

Limited Quantity: < 5 L

Sea transport

IMDG

Proper Shipping Name: Amines, Flammable, Corrosive, N.O.S.. or Polyamines, Flammable, Corrosive, N.O.S. – Marine Pollutant

Hazard Class or Division: 3

UN/NA Number: 2733

Packaging Group: III

Hazard Label(s): Warning, Flammable Liquid, Corrosive Liquid, Marine Pollutant

Hazard Placards(s): Flammable, Corrosive, Marine Pollutant

Air transport

IATA/ICAO

Proper Shipping Name: Amines, Flammable, Corrosive, N.O.S.. or Polyamines, Flammable, Corrosive, N.O.S. – Marine Pollutant



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

Hazard Class or Division: 3
UN/NA Number: 2733
Packaging Group: III
Hazard Label(s): Warning, Flammable Liquid, Corrosive Liquid, Marine Pollutant
Hazard Placards(s): Flammable, Corrosive, Marine Pollutant

15. Regulatory Information

EU. EINECS	EINECS	Does not conform
United States TSCA Inventory	TSCA	Listed

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

None

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard

SARA Title III – Section 313 Toxic Chemicals:

None

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Reportable Quantity (RQ):

None

United States – State Regulations

Massachusetts, New Jersey, or Pennsylvania Right to Know

Chemical Name	CAS-No.
Aspartic Ester	136210-32-7
Aliphatic Carboxylic Ester	623-91-6
4-Chloro- α,α,α -trifluorotoluene	98-56-6

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects

16. Other Information

NFPA Hazard Codes:

Health : 2
Fire : 2
Reactivity : 1
Special : 0



ENDURAFLAKE TOP COAT PART B RESIN

Safety Data Sheet

Revision date: 2015/10/07

SDS Prepared by:
EW Industries Ltd

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of EW Industries Ltd. Product Safety Program. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all EW Industries' products. You are urged to obtain data sheets for all EW Industries products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

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