

SECTION 1: Identification of article and of the company/undertaking

1.1. Product identifier

Article name : ABS ESD-R

1.2. Relevant identified uses of the article and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety document

ARMOR 3D

7, rue de la Pélissière
44118 La Chevrolière - FRANCE
T +33 (0)2 40 38 40 00

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

Not applicable

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

SECTION 3: Composition/information on ingredients

Modified acrylonitrile butadiene styrene copolymer

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
 First-aid measures after inhalation : If you feel unwell, seek medical advice. Assure fresh air breathing.
 First-aid measures after skin contact : Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention. Gently wash with plenty of soap and water.
 First-aid measures after eye contact : Get immediate medical advice/attention. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.
 First-aid measures after ingestion : Do not induce vomiting. Obtain emergency medical attention. Rinse mouth out with water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
 Symptoms/effects after eye contact : Dust from this product may cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Water spray. Dry powder.

5.2. Special hazards arising from the article

Fire hazard : In case of fire and/or explosion do not breathe fumes.
 Explosion hazard : Avoid raising powdered material due to explosion hazard.

5.3. Advice for firefighters

Precautionary measures fire : Minimize generation of dust which may be combustible. Evacuate area.
 Firefighting instructions : Use water spray or fog for cooling exposed containers. Do not enter fire area without proper protective equipment, including respiratory protection. Do not use a solid water stream as it may scatter and spread fire.
 Protection during firefighting : Use self-contained breathing apparatus and chemically protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
 Emergency procedures : Evacuate unnecessary personnel. Do not get in eyes, on skin, or on clothing.

ABS ESD-R

Safety Document

6.1.2. For emergency responders

Protective equipment	: Breathing apparatus. Use personal protective equipment as required.
Emergency procedures	: Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product. Minimize generation of dust. Clean up immediately by sweeping or vacuum.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Dust may form flammable and explosive mixture with air.
Precautions for safe handling	: Eliminate all ignition sources if safe to do so. Provide good ventilation in process area to prevent formation of vapour. Take precautionary measures against static discharge. Keep only in original container. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat. Take precautionary measures against static discharge.
Storage conditions	: Store in original container. Keep cool. Protect from sunlight. Store in a well-ventilated place. Store in a dry place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from ignition sources. Protect from moisture.
Storage area	: Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

8.2. Exposure controls

Appropriate engineering controls:

Provide adequate ventilation to minimize dust concentrations.

Hand protection:

Protective gloves

Eye protection:

In case of dust production: protective goggles

Skin and body protection:

Wear suitable protective clothing. Long sleeved protective clothing

Respiratory protection:

No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Black.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available

ABS ESD-R

Safety Document

Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: 350 °C
Decomposition temperature	: > 300 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.99 - 1.97 g/cm ³
Solubility	: not soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Combustion produces toxic gases.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Avoid dust formation. No naked flames, sparks, and do not smoke. Above a temperature of 300°C

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

fume. Corrosive vapours. Acrolein. Hydrocyanic acid. Acetaldehyde. Styrene. Toluene. Acrylonitrile.

SECTION 11: Toxicological information

No additional information available

SECTION 12: Ecological information

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations. Avoid discharge to the environment.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Not applicable.

SECTION 15: Regulatory information

No additional information available

SECTION 16: Other information

No additional information available

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product