



Safety Data Sheet(SDS)

According to GHS

Product name: ABS PLUS/ABS+ filament **Prepared by** GB/T 16483 and GB/T 17951
Revision Date: 2018.3.1 **SDS Number:** YS3D215003
Initial date: 2015.7.15 **Version:** 3.2

Section 1 - Identification of the substance/preparation and of the company/undertaking

Product identifier

Product name: ABS PLUS/ABS+ filament





Relevant identified uses of the substance or mixture and uses advised against

Details of the supplier of the safety data sheet

Manufacture/Supplier : Shenzhen Esun Industrial Co., Ltd.
Address: Wuhan University Building A403-I, No.6 Yuexing2Road,Nanshan District,
Shenzhen, China
Tel: 135 3064 5059
Emergency number : 135 3064 5059
E-mail : cdm@brightcn.net
Fax : 2603 1982

Further information obtainable from:Shenzhen Esun Industrial Co.,Ltd

Section 2 - Hazards Identification

| | Min | Max |
|--------------|---|------------|
| Flammability | 1  | 0=Minimum |
| Toxicity | 0 | 1=Low |
| Body Contact | 2  | 2=Moderate |
| Reactivit | 1  | 3=High |
| Chronic | 2  | 4=Extreme |

GHS classification

Not Applicable

Label elements:

GHS label elements

Not Applicable

SIGNAL WORD:

Not Applicable

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

Section 3 –Composition/Information on Ingredients

| Ingredient Name | CAS No. | EC No. | Content (%) |
|------------------------|----------------|---------------|--------------------|
| ABS | 9003-56-9 | 618-371-8 | 99 |
| N,N'-Ethylenebis | 110-30-5 | 203-755-6 | 0.5 |
| Typical Antioxidant | 31570-04-4 | 250-709-6 | 0.5 |

Section 4 - First Aid Measures

INGESTION

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

Inhalation

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

Section 5 - Firefighting Measures

EXTINGUISHING MEDIA

- Do NOT direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

FIRE FIGHTING

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.

FIRE/EXPLOSION HAZARD

- Combustible solid which burns but propagates flame with difficulty.
- Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc.as ignition may result

Section 6 –Accidental Release Measures

MINOR SPILLS

- Generally not applicable

MAJOR SPILLS

- Generally not applicable

Personal Protective Equipment advice is contained in Section 8 of the SDS.

Section 7 - Handling and Storage

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

SUITABLE CONTAINER

- Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.
- NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks.

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents

Section 8 - Exposure Controls, Personal Protection

EXPOSURE CONTROLS

Appropriate engineering controls

For molten materials:

Provide mechanical ventilation; in general such ventilation should be provided at compounding/ converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material. Keep dry!!

Processing temperatures may be well above boiling point of water, so wet or damp material may cause a serious steam explosion if used in unvented equipment.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.

Personal protection



Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Skin protection

See Hand protection below

Hands/feet protection

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage.

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

Body protection

See Other protection below

Other protection

- Overalls.
- P.V.C. apron.
- Barrier cream.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--|---|
| Odour | Room temperature : Odorlessness Heating : Pungent odor |
| Form | Solid |
| Melting Range (°C) | No data |
| Boiling Range (°C) | No data |
| Flash Point (°C) | No data |
| Decomposition Temp (°C) | No data |
| Autoignition Temp (°C) | No data |
| Upper Explosive Limit (%) | No data |
| Lower Explosive Limit (%) | No data |
| Volatile Component (%vol) | No data |
| Solubility in water (g/L) | Insoluble in water |
| p H (1% solution) | No data |
| p H (as supplied) | No data |
| Print Temp (°C) | 220-260 |
| Bed Temp(°C) | 90-110 |
| Density(g/cm³) | 1.06 |
| Heat Distortion Temp (°C,0.45MPa) | 73 |
| Melt Flow Index (g/10min) | 15 (220°C/16kg) |
| Tensile Strength (MPa) | 40 |
| Elongation at Break (%) | 30 |
| Flexural Strength (MPa) | 68 |
| Flexural Modulus (MPa) | 2443 |
| IZOD Impact Strength (kJ/m²) | 42 |

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

Section 10 - Stability and Reactivity

Reactivity

See section 7

Chemical stability

- Unstable in the presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - Toxicological Information

Information on toxicological affects

Acute Toxicity

LD/LC50 values relevant for classification

No data.

Primary irritant effect

On the skin

No data.

On the eyes

No data.

Inhaled

No data.

Sensitization: No data.

Section 12 - Ecological Information

| Ingredient | Persistence:Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|---------------------|-------------------------------|-------------------------|------------------------|-------------------|
| ABS | LOW | LOW | LOW | LOW |
| N,N'-Ethylenebis | No Data available | No Data available | No Data available | No Data available |
| Typical Antioxidant | No Data available | No Data available | No Data available | No Data available |

Section 13 - Disposal Considerations

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling

Product name: ABS filament

SDS Number:YS3D215003

Revision Date: 2018.3.1

- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.

Section 14 - Transport Information

Labels Required

Marine Pollutant: NO

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADR, IATA, IMDG,ADN

Section 15 - Regulatory Information

REGULATIONS

The product needs to follow local regulations.

Section 16 - Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

***End ***