



ABS Material Safety Data Sheet (MSDS)

#### 1. Chemical Product/Manufacturer Identification

**Product identifier:** Standard Print Co ASA.

Standard Print Co. uses an agent company to manufacture this filament on its behalf

Other means of identification: Acrylonitrile-butyl acrylate-styrene copolymer

**Use of the product:** Engineered Plastic for FDM 3D Printing

**Details of manufacturer or importer:**Standard Print Company PTY LTD

Suite 5, 1-5 Woodburn St,

Redfern, 2016, New South Wales,

Australia.

Emergency phone number: Standard Print Co., +61 419 496 599 (Office Hours Only)

#### 2. Hazards Identification

**Classification:** This material is not listed as being hazardous

according to Work Safe Australia's Hazardous

Chemical Information System (HCIS)

**Special advice on hazards:**Danger of burns in contact with hot polymer.

Hazardous vapours in case of burning or heating to molten state. Do not heat above 260°C. Print in well ventilated area See 10. Respiratory Protection

### 3. Composition and Information of Ingredients

Chemical characteristics: Engineered plastic based on Acrylonitrile-butyl

acrylate-styrene copolymer

**CAS no:** 26299-47-8

#### 4. First-Aid Measures

**Skin contact:** In case of contact with molten polymer immediately cool

the skin with cold water. Do not attempt to peel polymer

from skin. Medical aid may be required to remove

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adhering material and for treatment of burns.

**Inhalation:** After inhalation of decomposition gases or dust remove

patient to fresh air. Contact a physician and treat

symptomatically.

**Ingestion:** Rinse mouth with water and drink more water. Contact a

Physician and treat symptomatically.

**Eye contact:** Rinse open eyes thoroughly with water. Contact a

Physician and treat symptomatically.

### 5. Fire-Fighting Measures

Auto ignition temperature: Not tested

Extinguishing Media: Foam, Water, Dry chemical, Carbon Dioxide.

**Specific Hazards under fire:** Powdered material may form explosive dust-air

mixtures. In case of ignition or explosion, do not breathe

fumes.

**Specific fire-fighting measures:** Move container from fire areas if it can be done without

risk. Keep personnel removed from and upwind of fire. Evacuate non-essential personnel to safe area. Fire-fighters should wear proper protective equipment and self contained breathing apparatus - MSHA/NIOSH

(approved or equivalent).

**Other information:** Fine particulate of the material dispersed in air may

ignite. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust. Apply water from a safe distance

to cool and protect surrounding area.

#### 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Avoid dust formation and static discharge. Do not

overheat material.

Measures for environmental effects: Do not wash away into shower or waterway.

Methods and materials for containment and cleaning up:

If pellets are released in environment, take adequate steps to prevent aquatic animals and birds from eating pellets. Sweep up, place in a bag and hold for waste disposal. Sweep up spilled pellets on road or floor to

avoid tripping.

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Preventive measures for secondary accident:

Shut off all sources of ignition; No flares, smoking or

flames in area.

### 7. Handling and Storage

**Handling:** Local ventilation / Total air ventilation :

Good ventilation required when ABS is heated to a

molten state.

Safety treatments: Do not keep this material under high temperature

condition for a long time.

Do not touch high temperature resin ABS can generate static electricity, so take countermeasures to eliminate static electricity if

necessary

Safety Measures/Incompatibility: Do not empty into drains. Do not drop onto, or slide

across sharp objects. Avoid rough handling or dropping

**Recommendations for Storage:** This material is flammable. Follow fire defence and local

regulations for storage and handling. Keep away from heat. Keep away from sources of ignition—No smoking. Keep away from heat source, steam pipe and direct sunlight. Store in cool (below 50°C), dry conditions in well sealed containers. Material is hydroscopic – Keep in sealed container with desiccant or other hygroscopic substances to ensure the material remains in a dry state

for optimal performance

Stability and Reactivity: Chemically stable under normal conditions of use and

storage.

No data available on bio accumulative potential.

**Disposal considerations:** This product is currently accepted as being non-

recyclable within Australia via curbside collection check local regulations for details. Spools storing this product are currently non-recyclable within Australia but can be reused. Dispose of unused material via registered waste

carriers.

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### 8. Exposure Control and Personal Protection

**Exposure limits:**No information available

Biological limit values: Not established

**Recommended monitoring procedures:**No information available

**Derived no effect level (DNEL)**No information available

**Appropriate Engineering measures:** When rocessing, good ventilation is required to exclude

dust, fumes and gases. Dust emission data not currently

available

Personal protective equipment: In case of insufficient ventilation and fume extraction,

wear suitable respiratory equipment. Against powderdust: protective mask for powder-dust Against gas from molten polymer: protective mask for organic gas

**Respiratory protection:** If engineering controls do not maintain airborne

concentrations below recommended exposure limits (when applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be used. Respirator type: airpurifying respirator with an appropriate government-approved (where applicable) air-purifying filter, cartridge, or canister. Contact a health and safety professional or manufacturer for specific information.

**Hand protection:** Not required (for FDM printing). Wear suitable heat-

resistant gloves when handling hot or molten polymer

and heated elements of the printer.

**Eye protection:** Not required (for FDM printing). Wear protective

eyeglasses or chemical safety goggles when handling molten filament or when post processing filament.

**Skin and body protection:** Not required (for FDM printing). Wear long-sleeve

clothing so as not to touch skin directly with molten

filament.

**Hygiene measures:** Hand in accordance with good industrial hygiene and

safety practice. Do not eat, drink or smoke when using

this product.

**Environmental exposure controls:** Do not allow product to enter drains, water courses or

soil.

### 9. Physical and Chemical Properties

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Appearance: Solid Filament

**Density:** ~1.07 g/cm<sup>3</sup>

Colour: Variable

Odour: Noticeable when heated

pH Not available

Glass transition temperature: Approx. 112°C

**Boiling Point:** Not available

Melting Point: 240°C-270°C

**Thermal Decomposition Temperature:** >260°C. Thermal stability not tested. Low stability

hazard expected at normal printing temperatures

Auto ignition temperature: Not available

Flashpoint: Not available

Solubility in water: Negligible

Solubility in other solvents: Acetone

Vapour pressure: Not available

#### 10. Stability and Reactivity

**Reactivity:** Not reactive under normal handling conditions.

**Chemical Stability:** Stable for handling under normal handling conditions.

Possibility of Hazardous reactions: No hazardous reactions with other chemicals known

under normal handling conditions.

Conditions to avoid: Do not grind, pelletize or mill the material. Avoid

temperatures printing above 260°C.

Incompatible Materials: Material can react with strong oxidizers and bases

Hazardous decomposition products: Hazardous decomposition products may form under

fire conditions: Bicarbonates Monomers Oligomers Styrene Aldehydes Carbon oxide (CO) Carbon dioxide (CO2) Nitrogen oxides (NOx) Sulphur oxides Acetone

Alcohols Hydrogen cyanide

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### 11. Toxicological Information

Acute toxicity: Not tested (not to be expected)

Skin corrosion/irritation:

Not tested (not to be expected)

Serious eye damage/eye irritation:

Not tested (not to be expected)

**Respiratory or skin sensitization:**Not tested (not to be expected)

Germ cell mutagenicity: Not tested (not to be expected)

Carcinogenic effects: Not tested (not to be expected)

**Toxicity for reproduction:** Not tested (not to be expected)

Specific Target Organ/Systemic Toxicity (Single

Exposure):

Specific Target Organ/Systemic Toxicity (Repeated

Exposure):

Aspiration hazards: Not tested (not to be expected)

#### 12. Ecological Information

Aquatic toxicity: No information

Persistence and degradability: Minimal degradation

Bioaccumulation potential: No information

Mobility in soil: No information

Results of PBT and vPvB assessment: No information

Other adverse effects: No adverse effects known to date.

Additional ecotoxicological information: The material is practically non-soluble in water being

solid. Therefore, under environmental conditions, no detrimental effects on plants, animals and micro-

organism are to be expected.

Not tested (not to be expected)

Not tested (not to be expected)

### 13. Disposal Consideration

Waste treatment methods: Dispose to an authorized waste collection point in

accordance with local regulations.

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Packaging: Dispose of in accordance with local regulations.

#### 14. Transport Information

International transport guidelines: Not Listed

Specific safety measures and conditions on

transport:

Store in cool, dry conditions out of direct sunlight. Handle with care as to avoid damaging of outer

packaging material.

#### 15. Other Information/References

The information relates to this specific material. It may not be valid for this material, if used in combination with any other materials or in any process. It is the user's responsibility to satisfy him-selves as to the suitability and completeness of this information for his own particular use.

The information herein is given in good faith, but no warranty, express or implied, is made.

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

NOTICE REGARDING MEDICAL APPLICATION RESTRICTIONS: The company does not recommend any of its products, including samples, for use: (A) in any application which is intended for any internal contact with human body fluids or body tissues (B) as a critical component in any medical device that supports or sustains human life; and (C) specifically pregnant women or in any applications designed specifically to promote or interfere with human reproduction.

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