

## PREMIUM 3D FILAMENTS—ABS

## ABS

# Safety Data Sheet

**Section 1: Identification****Product Identifier and Other Means of Identification****Product Name:** Premium 3D Filaments-ABS**SDS Code:** ABS**Other Means of Identification:** Glow in the Dark, Thermochromic

**Related Part #** ABS17BK1, ABS17BK5, ABS17BL1, ABS17BL5, ABS17BR1, ABS17BR5, ABS17GD1, ABS17GD5, ABS17GO1, ABS17GO5, ABS17GR1, ABS17GR5, ABS17GY1, ABS17GY5, ABS17LI1, ABS17LI5, ABS17NA1, ABS17NA5, ABS17OR1, ABS17OR5, ABS17PI1, ABS17PI5, ABS17PU1, ABS17PU5, ABS17RE1, ABS17RE5, ABS17SGN1, ABS17SGN5, ABS17SI1, ABS17SI5, ABS17SK1, ABS17SK5, ABS17THGR1, ABS17THPU1, ABS17TL1, ABS17TL5, ABS17WH1, ABS17WH5, ABS17YE1, ABS17YE5, ABS30BK1, ABS30BK5, ABS30BL1, ABS30BL5, ABS30BR1, ABS30BR5, ABS30GD1, ABS30GD5, ABS30GO1, ABS30GO5, ABS30GR1, ABS30GR5, ABS30GY1, ABS30GY5, ABS30LI1, ABS30LI5, ABS30NA1, ABS30NA5, ABS30OR1, ABS30OR5, ABS30PI1, ABS30PI5, ABS30PU1, ABS30PU5, ABS30RE1, ABS30RE5, ABS30SGN1, ABS30SI1, ABS30SI5, ABS30SK1, ABS30SK5, ABS30TL1, ABS30TL5, ABS30WH1, ABS30WH5, ABS30YE1, ABS30YE5; ABS17THPU1, ABS17THGR1

**Recommended Use and Restriction on Use****Use:** Filament for 3D printing**Uses Advised Against:** Not available**Details of Manufacturer or Importer****Manufacturer**

MG Chemicals  
1210 Corporate Drive  
Burlington, Ontario L7L 5R6  
CANADA

MG Chemicals (Head Office)  
9347-193 Street  
Surrey, British Columbia V4N 4E7  
CANADA

**☎** +1-800-340-0772  
**FAX** +1-800-340-0773  
**E-MAIL** [support@mgchemicals.com](mailto:support@mgchemicals.com)  
**WEB** [www.mgchemicals.com](http://www.mgchemicals.com)

**☎** +1-905-331-1396  
**FAX** +1-905-331-2682  
**E-MAIL** [info@mgchemicals.com](mailto:info@mgchemicals.com)

**E-MAIL** (Competent Person): [sds@mgchemicals.com](mailto:sds@mgchemicals.com)*Section continued on the next page*

**PREMIUM 3D FILAMENTS—ABS****ABS****Emergency Phone Number**

**For hazardous material incidents ONLY**—leaks, spills, fires, exposures or accidents

USA or CANADA: Call CHEMTREC ☎: **+1-800-424-9300**

**For emergencies involving dangerous goods**; Collect 24/7

CANADA: Call CANUTEC ☎: **+1-613-996-6666** or **\*666** on cellular phones

**Section 2: Hazard(s) Identification****Classification of Hazardous Chemical****GHS Categories**

Non-hazardous—does not meet WHMIS or OSHA GHS classification criteria.

**Label Elements**

<b>Signal Word</b>	<i>None Mandated</i>
<b>Pictograms</b>	<b>Hazard Statements</b>
<i>None mandated</i>	None

**Hazards Not Otherwise Classified**

Not applicable.

**Section 3: Composition/Information on Ingredients**

<b>CAS #</b>	<b>Chemical Name</b>	<b>%(weight)</b>
9003-56-9	acrylonitrile butadiene styrene polymer <sup>a)</sup>	<100%

a) Non-hazardous component

**PREMIUM 3D FILAMENTS—ABS****ABS****Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
<b>IF IN EYES</b>	P305 + P351 + P338
<b>Immediate Symptoms</b>	<i>mild irritation</i>
<b>Response</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>IF SWALLOWED</b>	P301 + P310
<b>Immediate Symptoms</b>	<i>May cause gastrointestinal blockage.</i>
<b>Response</b>	IF SWALLOWED: Rinse mouth.
<b>IF ON SKIN</b>	
<b>Immediate Symptoms</b>	<i>Low toxicity: without known symptoms or adverse effects</i>
<b>Response</b>	If symptoms occur, wash hands. Get medical advice if symptoms persist.
<b>IF INHALED</b>	P304 + P340
<b>Immediate Symptoms</b>	<i>Exposure to heated vapors or fumes: eye irritation, upper respiratory tract irritation, nausea, headaches</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing.

**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. If in a molten state, do not apply direct water stream.
<b>Specific Hazards</b>	See combustion products.
<b>Combustion Products</b>	Produces carbon oxides (CO,CO <sub>2</sub> ), with traces of styrene, ethylbenzene, and hydrogen cyanide
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**PREMIUM 3D FILAMENTS—ABS****ABS****Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Not applicable
<b>Environmental Precautions</b>	Not applicable
<b>Containment Methods</b>	Not applicable
<b>Cleaning Methods</b>	Reclaim material if possible. Wash spill area with soap and water.
<b>Disposal Methods</b>	May be disposed of as regular waste.

**Section 7: Handling and Storage**

<b>Prevention</b>	Avoid breathing fumes.
<b>Handling</b>	Wash hands thoroughly after handling.
<b>Storage</b>	Not applicable.

**Section 8: Exposure Controls/Personal Protection****Substances with Occupational Exposure Limit Values**

This product contains no substances with occupational exposure limits.

**Engineering Controls**

<b>Ventilation</b>	General ventilation is adequate for normal use; keep overall exposure as low as possible.
--------------------	---

*Section continued on next page*

## PREMIUM 3D FILAMENTS—ABS

## ABS

### Personal Protective Equipment

<b>Eye protection</b>	Wear appropriate protective eyeglasses or chemical safety goggles.  <b>Recommendation:</b> Ensure that glasses have side shields for lateral protection.
<b>Skin Protection</b>	No skin protection required.
<b>Respiratory Protection</b>	For over-exposures to dust/vapors/fumes, wear respirator such as a half-mask respirator with organic vapor cartridges.  For exposure to combustion products, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.  <b>RECOMMENDATION:</b> Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3.

### General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

### Section 9: Physical and Chemical Properties

<b>Physical State</b>	Solid	<b>Lower Flammability Limit</b>	Not applicable
<b>Appearance</b>	Variable colors	<b>Upper Flammability Limit</b>	Not applicable
<b>Odor</b>	Faint to odorless	<b>Vapor Pressure @20 °C</b>	Not available
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	Not applicable
<b>pH</b>	Not available	<b>Relative Gravity @25 °C</b>	1.1
<b>Freezing/Melting Point</b>	≥100 °C [≥212 °F]	<b>Solubility in Water</b>	Insoluble
<b>Initial Boiling Point</b>	Not available	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point</b>	Not applicable	<b>Auto-ignition Temperature</b>	≥400 °C [≥752 °F]
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability (solid, gas)</b>	Not available	<b>Viscosity @40 °C</b>	Not applicable

**PREMIUM 3D FILAMENTS—ABS****ABS****Section 10: Stability and Reactivity**

<b>Reactivity</b>	Not available
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures. When heated at 200 °C and above, it may release residual styrene and ethylbenzene.
<b>Conditions to Avoid</b>	Incompatible substances, open flames, and temperatures above 300 °C [572 °F]
<b>Incompatibilities</b>	None known
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

**Section 11: Toxicological Information****Summary of Effects and Symptoms by Routes of Exposure**

<b>Eyes</b>	Under normal conditions, no effect known or expected. If exposed to heated vapors or fumes: may cause eye irritation.
<b>Skin</b>	Under normal conditions, no effect known or expected. If exposed to heated vapors or fumes: may cause skin irritation.
<b>Inhalation</b>	Under normal conditions, no effect known or expected. If exposed to heated vapors or fumes: may cause upper respiratory tract irritation, headaches, nausea
<b>Ingestion</b>	May cause gastrointestinal blockage.
<b>Chronic</b>	No effect known

**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
acrylonitrile butadiene styrene polymer	>5 g/kg Rat	Not available	Not available

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA databases were consulted. The data from supplier (M)SDSs were also consulted.

*Section continued on the next page*

**PREMIUM 3D FILAMENTS—ABS****ABS****Other Toxicological Effects**

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met.
<b>Sensitization</b> (allergic reactions)	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b> (risk of cancer)	None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.
<b>Mutagenicity</b> (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b> (risk to sex functions)	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Not applicable—solid substance

**PREMIUM 3D FILAMENTS—ABS****ABS****Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources. The component substances are not classifiable as an environmental toxicant.

**Acute Ecotoxicity**

No data available.

**Chronic Ecotoxicity**

Available data doesn't give rise to classification as a chronic ecotoxicant.

**Biodegradability**

Not readily biodegradable

**Bioaccumulation**

No data available

**Other Effects**

None known

**Section 13: Disposal Information**

Dispose of contents in accordance with all local, regional, national, and international regulations.



**PREMIUM 3D FILAMENTS—ABS****ABS****Section 14: Transport Information****Ground**

**Refer to TDG** (Canadian Transportation of Dangerous Goods regulations) and **USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Not Regulated	
---------------	--

**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Not Regulated	
---------------	--

**Sea**

**Refer to IMDG regulations.**

Not Regulated	
---------------	--

**Section 15: Regulatory Information****Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL.

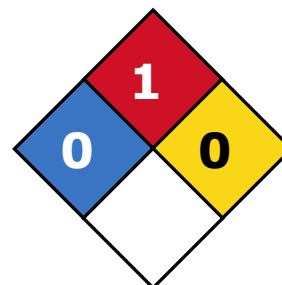
**Hazardous Products Act (R.S.C., 1985, c. H-3)**

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

*Section continued on the next page*

**PREMIUM 3D FILAMENTS—ABS****ABS****USA****Other Classifications****HMIS<sup>®</sup> RATING**

<b>HEALTH:</b>	<b>0</b>
<b>FLAMMABILITY:</b>	<b>1</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<b>PERSONAL PROTECTION:</b>	

**NFPA<sup>®</sup> 704 CODES**

*Approximate HMIS and NFPA Risk Ratings Legend:*

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

**CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains does not contain substances which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity).

When heated for 3D printing, this product may release residual amounts of styrene (CAS # 100-42-5) and ethylbenzene (CAS # 100-41-4), which are listed as a carcinogen.

**Europe****RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

**WEEE** (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

**PREMIUM 3D FILAMENTS—ABS****ABS****Section 16: Other Information****SDS Prepared by** Michel Hachey**Date of Review** 05 February 2019**Supersedes** 21 February 2017**Reason for Changes:** Change to Section 15, California Proposition 65.**Reference**

1) ACGIH 2017 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2017).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

*Section continued on the next page*

**PREMIUM 3D FILAMENTS—ABS****ABS**

**Technical Queries** Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at [www.mgchemicals.com](http://www.mgchemicals.com).

Email: [support@mgchemicals.com](mailto:support@mgchemicals.com)

**Mailing Addresses** *Manufacturing & Support*  
1210 Corporate Drive  
Burlington, Ontario, Canada  
L7L 5R6

*Head Office*  
9347–193rd Street  
Surrey, British Columbia, Canada  
V4N 4E7

**Disclaimer** This material safety data sheet is provided as an information resource only. *M.G. Chemicals, Ltd.* believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to query and verify any information seeming suspect where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, regional, national, and international regulations.