

Issuing Date 03-Feb-2017

Revision Date 27-Jan-2017

Revision B

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name ASA Black

Other means of identification

Product Code(s) SDS-000011 EN A BLK

PN (Part Number) 311-21200 333-60501 333-90501 355-02142

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use 3D Printing

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Stratasys Corporate headquarters United States
9600 West 76th Street Suite #108
Eden Prairie, MN 55344
United States
Local: +1 952-294-3900
Phone: +1 952-937-3000

Emergency telephone number

Emergency Telephone

- +49 722 97772280 - Europe - Multi lingual response
- +49 722 97772281 - Global – English Language response
- +1 978 495 5580 - USA – Multi-lingual response
- +85 2 975 70887 - Asia Pacific - Multi lingual response
- +61 2 8011 4763 - Australia - Multi lingual response
- +86 15626070595 - China - Chinese response

E-mail address info@Stratasys.com

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 1B
Reproductive toxicity	Category 2

Label elements

Danger

Hazard statements

May cause cancer
Suspected of damaging fertility or the unborn child



The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Monofilament

Physical state Solid

Odor No information available

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. See section 7 for more information. See section 8 for more information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%	Proprietary
Benzene, ethenyl	100-42-5	0.1 - 1	*
n-Hexane	110-54-3	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Some of the chemicals have dust hazards. These hazards are not germane, as the chemicals are encapsulated in a fully reacted polymer

4. FIRST AID MEASURES

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact

Wash skin with soap and water when in contact with molten residues.

Ingestion

Drink plenty of water. Do not induce vomiting without medical advice. Call a physician immediately.

Most important symptoms and effects, both acute and delayed**Symptoms**

None known.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Water. Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

None known.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Use personal protective equipment as required. Avoid contact with skin and eyes. Remove all sources of ignition. Sweep up to prevent slipping hazard.

Other Information

Refer to protective measures listed in Sections 7 and 8.

Environmental precautions**Environmental precautions**

Do not flush into surface water or sanitary sewer system. Keep out of waterways.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers.

Prevention of secondary hazards

May form combustible dust concentrations in air if small particles are generated during further processing, handling or by other means. Avoid dust accumulation in enclosed space. Prevent dust cloud. Remove all sources of ignition.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes, when handling melted filament. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air my form. Use respirator.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Benzene, ethenyl 100-42-5	STEL: 40 ppm TWA: 20 ppm	TWA: 100 ppm (vacated) TWA: 50 ppm (vacated) TWA: 215 mg/m ³ (vacated) STEL: 100 ppm (vacated) STEL: 425 mg/m ³ Ceiling: 200 ppm	IDLH: 700 ppm TWA: 50 ppm TWA: 215 mg/m ³ STEL: 100 ppm STEL: 425 mg/m ³
n-Hexane 110-54-3	TWA: 50 ppm S*	TWA: 500 ppm TWA: 1800 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 180 mg/m ³	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m ³

Appropriate engineering controls

Engineering controls If dust is generated during further processing provide exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Goggles. Safety glasses with side-shields.

Hand Protection Wear suitable gloves.

Skin and body protection Impervious clothing.

Respiratory protection Minimize dust generation and accumulation. Wear respiratory protection.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance Monofilament
Odor No information available
Color Characteristic
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known

Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	
<u>Other Information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density VALUE	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Excessive heat. To avoid thermal decomposition, do not overheat.
Incompatible materials	Oxidizing agent. Strong bases.
Hazardous decomposition products	Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO ₂). Aldehydes.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms None known.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Unknown acute toxicity No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Benzene, ethenyl 100-42-5	= 1000 mg/kg (Rat)	-	= 11.7 mg/L (Rat) 4 h
n-Hexane 110-54-3	= 25 g/kg (Rat)	= 3000 mg/kg (Rabbit)	= 48000 ppm (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Benzene, ethenyl 100-42-5	-	Group 2B	Reasonably Anticipated	X

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory system, lungs.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzene, ethenyl 100-42-5	1.4: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.72: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.46 - 4.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.15 - 3.2: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	3.24 - 4.99: 96 h Pimephales promelas mg/L LC50 flow-through 19.03 - 33.53: 96 h Lepomis macrochirus mg/L LC50 static 6.75 - 14.5: 96 h Pimephales promelas mg/L LC50 static 58.75 - 95.32: 96 h Poecilia reticulata mg/L LC50 static	-	3.3 - 7.4: 48 h Daphnia magna mg/L EC50
n-Hexane 110-54-3	-	2.1 - 2.98: 96 h Pimephales promelas mg/L LC50 flow-through	-	1000: 24 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation Not likely to bioaccumulate.

Component Information

Chemical name	Partition coefficient
Benzene, ethenyl 100-42-5	2.95

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number U009 U080

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Benzene, ethenyl 100-42-5	Toxic Ignitable
n-Hexane 110-54-3	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

DSL/NDSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
IECSC	Listed
KECL	Listed
PICCS	Listed
AICS	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Benzene, ethenyl 100-42-5	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Benzene, ethenyl 100-42-5	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
n-Hexane 110-54-3	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations**California Proposition 65**

This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Carbon mesoporous (Bound) - 1333-86-4	Carcinogen
Acrylonitrile - 107-13-1	Carcinogen
Methylene Chloride - 75-09-2	Carcinogen

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Carbon mesoporous (Bound) 1333-86-4	X	X	X
Benzene, ethenyl 100-42-5	X	X	X
n-Hexane 110-54-3	X	X	X
Acrylonitrile 107-13-1	X	X	X
2-Propenenitrile 9003-54-7	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 0	Flammability 0	Instability 0	Physical and chemical properties -
HMIS	Health hazards 1*	Flammability 0	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>	<i>* = Chronic Health Hazard</i>			

Revision Date 27-Jan-2017

Revision Note No information available.

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End of Safety Data Sheet