

MSDS

STRATASYS ABS MATERIAL

<p>Product Code(s) SDS-000001 EN E IVY</p> <p>Product Name ABS Ivory ABS M30 Ivory ABS 30 ABS 30 Natural P430 ABS Ivory P430L ABS Ivory P430XL Ivory</p> <p>Page 1</p>	<p>Product Code(s) SDS-000002 EN E BLK</p> <p>Product Name ABS Black ABS 30 Black ABS M30 Black P430 ABS Black P430L ABS Black P430XL Black</p> <p>Page 11</p>
<p>Product Code(s) SDS-000003 EN E WHT</p> <p>Product Name ABS White ABS 30 White ABS M30 White P430 ABS White P430L White P430XL White</p> <p>Page 21</p>	<p>Product Code(s) SDS-000004 EN E DGY</p> <p>Product Name ABS Dark Gray ABS 30 Gray ABS M30 Dark Gray P430 Dark Gray P430 ABS Gray P430 ABS Steel Gray P430L ABS Gray P430XL Dark Gray</p> <p>Page 31</p>
<p>Product Code(s) SDS-000006 EN E ORG</p> <p>Product Name ABS Orange ABS M30 Orange P430 ABS Nectarine P430L ABS Nectarine P430XL Nectarine</p> <p>Page 42</p>	<p>Product Code(s) SDS-000007 EN E BLU</p> <p>Product Name ABS Blue ABS 30 Blue ABS M30 Blue P430 ABS Blue P430L ABS Blue P430XL ABS Blue</p> <p>Page 51</p>
<p>Product Code(s) SDS-000008 EN E GRN</p> <p>Product Name ABS Green ABS M30 Green P430 ABS Green P430 ABS Olive Green P430L ABS Green P430XL Olive Green</p> <p>Page 61</p>	<p>Product Code(s) SDS-000009 EN U YLW</p> <p>Product Name ABS Yellow ABS M30 Yellow P430 ABS Yellow P430L ABS Yellow P430XL Florescent Yellow</p> <p>Page 71</p>

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 28-Nov-2017

Revision Date 26-Nov-2017

Revision C

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000001 EN E IVY
Product Name	ABS Ivory ABS M30 Ivory ABS 30 ABS 30 Natural P430 ABS Ivory P430L ABS Ivory P430XL Ivory
PN (Part Number)	311-20000 311-20018 333-60300 333-90300 340-21200 345-10005 345-42005 350-80100 355-02110 355-08110 360-50110 CQ703A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone	<ul style="list-style-type: none">• +44 1865 407333 - Global – English Language response• +44 1235 239670 - Europe - Multi lingual response• +1 215 207 0061 - USA – Multi-lingual response• +65 3158 1074 - Asia Pacific - Multi lingual response• +61 2 8014 4558 - Australia - English Language response• +86 512 8090 3042 - China - Chinese response
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Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402

Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	Poison Control (ET): 16662, (+372) 626 93 90
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.

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 doctor immediately.

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

Symptoms	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Foam Water Carbon dioxide (CO ₂) Dry chemical Alcohol resistant foam
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Unsuitable extinguishing media	None known.
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5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	None known.
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5.3. Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.
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For emergency responders	Use personal protection recommended in Section 8.
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6.2. Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. Keep out of waterways.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
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Prevention of secondary hazards Prevent dust cloud. Avoid dust accumulation in enclosed space. May form combustible dust concentrations in air if small particles are generated during further processing, handling or by other means. Remove all sources of ignition.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	Characteristic
Odour 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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity	The environmental impact of this product has not been fully investigated
Unknown aquatic toxicity	Contains 100 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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12.4. Mobility in soil

Mobility in soil	No information available.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available.
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Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method

Revision Date

26-Nov-2017

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 13-Jun-2019

Revision Date 13-Jun-2019

Revision Number 2

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000002 EN E BLK
Product Name	ABS Black ABS 30 Black ABS M30 Black P430 ABS Black P430L ABS Black P430XL Black
PN (Part Number)	311-20200 311-20218 330-20200 331-20301 333-60301 333-90301 340-21202 345-10006 345-42006 350-80101 355-02112 355-08112 360-50211 CQ699A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670 - Europe - Multi lingual response

Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	Poison Control (ET): 16662, (+372) 626 93 90
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and

	English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Acrylonitrile butadiene styrene polymer	-	9003-56-9	80-100	Not classified	No data available

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor immediately.

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

Symptoms None known.

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

Note to doctors Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Foam
Water
Carbon dioxide (CO₂)
Dry chemical
Alcohol resistant foam

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Prevent dust cloud. Avoid dust accumulation in enclosed space. May form combustible dust concentrations in air if small particles are generated during further processing, handling or

by other means. Remove all sources of ignition.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	black
Odour threshold	No information available

Property	Values	Remarks • Method
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	> 380 °C	
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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	1.02 - 1.07	g/cm3
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	> 350 °C	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	negligible
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acrylonitrile butadiene styrene polymer	>5000 mg/kg rat	>2000 mg/kg rabbit	-

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0.0092 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water hazard class (WGK)

Not Hazardous

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

SDS-000002 - ABS Black
ABS 30 Black
ABS M30 Black
P430 ABS Black
P430L ABS Black
P430XL Black

Revision Date 13-Jun-2019

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method

Revision Date 13-Jun-2019

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet derives from a third party source. Whilst we believe that the information is correct as at the date of its publication, we do not make any representations or warranties regarding the

accuracy or completeness of the information nor the quality or specification of any materials, substances or mixtures referred to herein (collectively, "Materials"). The information is being provided solely as a guideline for the safe handling, use, consumption, processing, storage, transportation, disposal and release of the Materials. The information may not be sufficient for such purposes and the user should not place any reliance on the information provided. The information may not be applicable to Materials that are combined with any materials or in any process other than as expressly stated herein. We shall not be liable for any kind of liability including, without limitation, damages, losses or expenses, arising out of or as a result of any reliance on the information contained in this Safety Data Sheet. This Safety Data Sheet remains our exclusive property and should not be reproduced, modified or distributed without our prior written consent.

End of Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 17-May-2019

Revision Date 17-May-2019

Revision Number 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000003 EN E WHT
Product Name	ABS White ABS 30 White ABS M30 White P430 ABS White P430L White P430XL White
PN (Part Number)	300-20000 311-20100 330-20000 333-60302 333-90302 340-21201 345-10100 345-42100 350-80108 355-02111 CZ006A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670 - Europe - Multi lingual response

Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	Poison Control (ET): 16662, (+372) 626 93 90
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)

Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

EUH210 - Safety data sheet available on request

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Titanium Dioxide (Bound)	236-675-5	13463-67-7	1-3	Not classified	No data available

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor

immediately.

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

Symptoms None known.

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

Note to doctors Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Foam
Water
Carbon dioxide (CO₂)
Dry chemical
Alcohol resistant foam

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Titanium Dioxide (Bound) 13463-67-7	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Titanium Dioxide (Bound) 13463-67-7	-	TWA: 10 mg/m ³	-	-	TWA: 6 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Titanium Dioxide (Bound) 13463-67-7	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 3 mg/m ³	STEL: 30 mg/m ³ TWA: 10.0 mg/m ³ TWA: 10 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

Eye/face protection	Goggles. Safety glasses with side-shields.
Skin and body protection	Impervious clothing.
Respiratory protection	Minimise dust generation and accumulation. Wear respiratory protection.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	Characteristic
Odour threshold	No information available

Property	Values	Remarks • Method
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	> 380 °C	
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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	1.02 - 1.07	g/cm3
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	> 350 °C	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	None
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation No known effects under normal use conditions.

Eye contact Not expected to cause eye irritation.

Skin contact No known hazard in contact with skin.

Ingestion No known hazard by swallowing.

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 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium Dioxide (Bound)	> 10000 mg/kg (Rat)	-	-

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	See section 2 for classified hazards based on component information.
Respiratory or skin sensitisation	See section 2 for classified hazards based on component information.
Germ cell mutagenicity	See section 2 for classified hazards based on component information.
Carcinogenicity	See section 2 for classified hazards based on component information.
Reproductive toxicity	No information available.
STOT - single exposure	No known effects under normal use conditions.
STOT - repeated exposure	None under normal use conditions.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity	Contains 99.5156 % of components with unknown hazards to the aquatic environment.
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12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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12.4. Mobility in soil

Mobility in soil	No information available.
-------------------------	---------------------------

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available.
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Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water hazard class (WGK) Not Hazardous

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method

SDS-000003 - ABS White
ABS 30 White
ABS M30 White
P430 ABS White
P430L White
P430XL White

Revision Date 17-May-2019

Aspiration toxicity	Calculation method
Ozone	Calculation method

Revision Date 17-May-2019

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet

Product Brand

FDM


laserlines
01295 672500
3dworld@laserlines.co.uk
www.3dprinting.co.uk

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 19-Feb-2020

Revision Date 13-Jan-2020

Revision Number 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000004 EN E DGY
Product Name	ABS Dark Gray ABS 30 Gray ABS M30 Dark Gray P430 Dark Gray P430 ABS Gray P430 ABS Steel Gray P430L ABS Gray P430XL Dark Gray
PN (Part Number)	311-20300 330-20100 330-20800 333-60308 333-90308 340-21203 345-10007 345-42007 350-80102 355-02113 CQ701A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670 - Europe - Multi lingual response

Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	Poison Control (ET): 16662, (+372) 626 93 90
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59

Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poisons Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Acrylonitrile butadiene styrene polymer	-	9003-56-9	80-100	Not classified	No data available
2-Propenenitrile	-	9003-54-7	1-3	Not classified	No data available
Titanium Dioxide (Bound)	236-675-5	13463-67-7	0.3-1	Not classified	No data available
Carbon mesoporous (Bound)	215-609-9 435-640-3	1333-86-4	0.1 - 0.3	Not classified	No data available

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor immediately.

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

Symptoms	None known.
----------	-------------

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

Note to doctors	Treat symptomatically.
-----------------	------------------------

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Foam Water Carbon dioxide (CO2) Dry chemical Alcohol resistant foam
------------------------------	---

Unsuitable extinguishing media	None known.
--------------------------------	-------------

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	None known.
--	-------------

5.3. Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
--	--

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	United Kingdom	France	Spain	Germany
Titanium Dioxide (Bound) 13463-67-7	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-
Carbon mesoporous (Bound) 1333-86-4	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark

Titanium Dioxide (Bound) 13463-67-7	-	TWA: 10 mg/m ³	-	-	TWA: 6 mg/m ³
Carbon mesoporous (Bound) 1333-86-4	-	TWA: 3.5 mg/m ³	-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3.5 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Titanium Dioxide (Bound) 13463-67-7	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 3 mg/m ³	STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Carbon mesoporous (Bound) 1333-86-4	-	-	TWA: 4 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3 mg/m ³ STEL: 15 mg/m ³

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance Monofilament
Odour No data available
Colour Characteristic
Odour threshold No information available

Property	Values	Remarks • Method
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	> 380 °C	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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	1.02 - 1.07	g/cm3
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Hyphen	> 350 °C	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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10.4. Conditions to avoid

Conditions to avoid	Excessive heat. To avoid thermal decomposition, do not overheat.
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10.5. Incompatible materials

Incompatible materials	Oxidising agent. Strong bases.
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10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acrylonitrile butadiene styrene polymer	>5000 mg/kg rat	>2000 mg/kg rabbit	-
2-Propenenitrile	= 1800 mg/kg = 1800 mg/kg (Rat)	-	-
Titanium Dioxide (Bound)	> 10000 mg/kg > 10000 mg/kg (Rat)	-	-
Carbon mesoporous (Bound)	> 15400 mg/kg > 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

Reproductive toxicity No information available.
 STOT - single exposure No information available.
 STOT - repeated exposure No information available.
 Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 99.8016 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Carbon mesoporous (Bound)	-	-	-	5600: 24 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

SDS-000004 - ABS Dark Gray
ABS 30 Gray
ABS M30 Dark Gray
P430 Dark Gray
P430 ABS Gray
P430 ABS Steel Gray
P430L ABS Gray
P430XL Dark Gray

Revision Date 13-Jan-2020

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant Not applicable
14.6 Special Provisions None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

14.1 UN Number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental Hazard Not applicable
14.6 Special Provisions None

ADR

14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental Hazard Not applicable
14.6 Special Provisions None

IATA

14.1 UN Number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental Hazard Not applicable
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical name	French RG number	Title
Carbon mesoporous (Bound) 1333-86-4	RG 16, RG 16bis	-

European Union

SDS-000004 - ABS Dark Gray
ABS 30 Gray
ABS M30 Dark Gray
P430 Dark Gray
P430 ABS Gray
P430 ABS Steel Gray
P430L ABS Gray
P430XL Dark Gray

Revision Date 13-Jan-2020

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method

Revision Date 13-Jan-2020

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

SDS-000004 - ABS Dark Gray
ABS 30 Gray
ABS M30 Dark Gray
P430 Dark Gray
P430 ABS Gray
P430 ABS Steel Gray
P430L ABS Gray
P430XL Dark Gray

Revision Date 13-Jan-2020

Disclaimer

The information provided in this Safety Data Sheet derives from a third party source. Whilst we believe that the information is correct as at the date of its publication, we do not make any representations or warranties regarding the accuracy or completeness of the information nor the quality or specification of any materials, substances or mixtures referred to herein (collectively, "Materials"). The information is being provided solely as a guideline for the safe handling, use, consumption, processing, storage, transportation, disposal and release of the Materials. The information may not be sufficient for such purposes and the user should not place any reliance on the information provided. The information may not be applicable to Materials that are combined with any materials or in any process other than as expressly stated herein. We shall not be liable for any kind of liability including, without limitation, damages, losses or expenses, arising out of or as a result of any reliance on the information contained in this Safety Data Sheet. Ltd. © 2019. License granted to make unlimited paper/electronic copies for internal use only. This Safety Data Sheet should not be reproduced, modified, or distributed to third parties without prior written consent from Stratasy Ltd.

End of Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 28-Nov-2017

Revision Date 26-Nov-2017

Revision C

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s) SDS-000006 EN E ORG

Product Name ABS Orange
ABS M30 Orange
P430 ABS Nectarine
P430L ABS Nectarine
P430XL Nectarine

PN (Part Number) 333-60307 340-21206 345-10010 345-42010 350-80105 CQ704A

**Denmark
PR No** N/A

Pure substance/mixture Mixture

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

Recommended Use Additive manufacturing

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone

- +44 1865 407333 - Global – English Language response
- +44 1235 239670 - Europe - Multi lingual response
- +1 215 207 0061 - USA – Multi-lingual response
- +65 3158 1074 - Asia Pacific - Multi lingual response
- +61 2 8014 4558 - Australia - English Language response
- +86 512 8090 3042 - China - Chinese response

Austria Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium Poison Centre (BE): +32 70 245 245
Croatia Poison Control (CR): +385 1 2348 342
Czech Republic Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark Poison Control Hotline (DK): +45 82 12 12 12
Estonia Poison Control (ET): 16662, (+372) 626 93 90
Finland Poison Information Centre (FI): +358 9 471 977

France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor immediately.

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

Symptoms None known.

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

Note to doctors Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Foam
Water
Carbon dioxide (CO₂)
Dry chemical
Alcohol resistant foam

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	Characteristic
Odour 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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity	Contains 99.9999 % of components with unknown hazards to the aquatic environment.
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12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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12.4. Mobility in soil

Mobility in soil	No information available.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available.
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Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
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14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method

Revision Date

26-Nov-2017

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 29-Nov-2017

Revision Date 26-Nov-2017

Revision C

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000007 EN E BLU
Product Name	ABS Blue ABS 30 Blue ABS M30 Blue P430 ABS Blue P430L ABS Blue P430XL ABS Blue
PN (Part Number)	311-20500 330-20400 333-60304 340-21205 345-10009 345-42009 350-80104 355-02115 CQ700A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone	<ul style="list-style-type: none"> +44 1865 407333 - Global – English Language response +44 1235 239670 - Europe - Multi lingual response +1 215 207 0061 - USA – Multi-lingual response +65 3158 1074 - Asia Pacific - Multi lingual response +61 2 8014 4558 - Australia - English Language response +86 512 8090 3042 - China - Chinese response
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Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12

Estonia	Poison Control (ET): 16662, (+372) 626 93 90
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor immediately.

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

Symptoms None known.

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

Note to doctors Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Foam
Water
Carbon dioxide (CO₂)
Dry chemical
Alcohol resistant foam

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Prevent dust cloud. Avoid dust accumulation in enclosed space. May form combustible dust concentrations in air if small particles are generated during further processing, handling or

by other means. Remove all sources of ignition.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	Characteristic
Odour threshold	No information available

Property	Values	Remarks • Method
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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity	Contains 99.9672 % of components with unknown hazards to the aquatic environment.
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12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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12.4. Mobility in soil

Mobility in soil	No information available.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available.
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Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
 Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method

Revision Date 26-Nov-2017

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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SDS-000007 - ABS Blue
ABS 30 Blue
ABS M30 Blue
P430 ABS Blue
P430L ABS Blue
P430XL ABS Blue

Revision Date 26-Nov-2017

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End of Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 29-Nov-2017

Revision Date 26-Nov-2017

Revision C

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	SDS-000008 EN E GRN
Product Name	ABS Green ABS M30 Green P430 ABS Green P430 ABS Olive Green P430L ABS Green P430XL Olive Green
PN (Part Number)	330-20500 333-60305 340-21208 345-10012 345-42012 350-80107 CQ705A
Denmark PR No	N/A
Pure substance/mixture	Mixture

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

Recommended Use	Additive manufacturing
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Importer

Stratasys EMEA Regional Office
Airport Boulevard B 120
77836 Rheinmünster, Germany
Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone	<ul style="list-style-type: none">• +44 1865 407333 - Global – English Language response• +44 1235 239670 - Europe - Multi lingual response• +1 215 207 0061 - USA – Multi-lingual response• +65 3158 1074 - Asia Pacific - Multi lingual response• +61 2 8014 4558 - Australia - English Language response• +86 512 8090 3042 - China - Chinese response
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Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison Centre (BE): +32 70 245 245
Croatia	Poison Control (CR): +385 1 2348 342
Czech Republic	Poison Control (CS): +420 224 919 293, +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	Poison Control (ET): 16662, (+372) 626 93 90

Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Greece	Poison Information Center (EL): (0030) 2107793777
Hungary	Poison Information Service (HU): (+ 36-80) 201-199
Iceland	Poison Information Center: 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Latvia	Poison Information Center (LV): +371 67042473
Lithuania	Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378
Luxembourg	Belgian Poison Center: (+352) 8002-5500
Netherlands	National Poisons Information Center (NVIC): 030-274 8888
Norway	Poison Center: 22 59 13 00
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	112 – ask for Poisons Information

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

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 doctor.
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 doctor

immediately.

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

Symptoms None known.

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

Note to doctors Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Foam
Water
Carbon dioxide (CO₂)
Dry chemical
Alcohol resistant foam

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None known.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. 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 may form. Use respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment

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

Skin and body protection Impervious clothing.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odour	No data available
Colour	Characteristic
Odour 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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂).
Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 mg/kg

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 sensitisation	No information available.

Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity	Contains 99.68986 % of components with unknown hazards to the aquatic environment.
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12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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12.4. Mobility in soil

Mobility in soil	No information available.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available.
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Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method

Revision Date 26-Nov-2017

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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SDS-000008 - ABS Green
ABS M30 Green
P430 ABS Green
P430 ABS Olive Green
P430L ABS Green
P430XL Olive Green

Revision Date 26-Nov-2017

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End of Safety Data Sheet

Issuing Date 29-Nov-2017

Revision Date 26-Nov-2017

Revision C

Section 1: Identification: Product identifier and chemical identity**Product identifier**

Product Name ABS Yellow
ABS M30 Yellow
P430 ABS Yellow
P430L ABS Yellow
P430XL Florescent Yellow

Product Code(s) SDS-000009 EN U YLW

PN (Part Number) 330-20600 333-60306 340-21207 345-10011 345-42011 350-80106 CQ702A

Other means of identification

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended Use Additive manufacturing

Uses advised against No information available

Details of manufacturer or importer**Importer**

Objective3D Pty Ltd
33-35 Yazaki Way
Carrum Downs, 3201
Victoria, Australia
Phone: +03 9785 2333
Local: +1300 559 454
Fax: +03 9785 2322

For further information, please contact

E-mail address info@Stratasys.com

Emergency telephone number

Emergency telephone number

- +44 1865 407333 - Global – English Language response
- +44 1235 239670 - Europe - Multi lingual response
- +1 215 207 0061 - USA – Multi-lingual response
- +65 3158 1074 - Asia Pacific - Multi lingual response
- +61 2 8014 4558 - Australia - English Language response
- +86 512 8090 3042 - China - Chinese response

Section 2: Hazard(s) identification**GHS Classification**

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS)

Label elements

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS)

Other hazards

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

Section 3: Composition and information on ingredients, in accordance with Schedule 8

Substance

Not applicable

Mixture

Chemical name	CAS No	Weight-%
Non-hazardous ingredients	Proprietary	Balance

Section 4: First aid measures

Description of first aid measures

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 doctor.
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 doctor immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	None known.
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Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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Section 5: Firefighting measures

Suitable Extinguishing Media

Suitable Extinguishing Media	Foam. Water. Carbon dioxide (CO2). Dry chemical. Alcohol resistant foam.
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Unsuitable extinguishing media	None known.
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Specific hazards arising from the chemical

Specific hazards arising from the chemical	None known.
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Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 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.

For emergency responders Use personal protection recommended in Section 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 labelled containers.

Precautions to prevent secondary hazards

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

Section 7: Handling and storage, including how the chemical may be safely used

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 may form. Use respirator.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Oxidising agent. Strong bases.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

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.

Skin and body protection Impervious clothing.

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

Environmental exposure controls No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state Solid
Appearance Monofilament
Odour No data available.
Colour Characteristic
Odour 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	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

Softening point No information available
Molecular weight No information available
VOC Content (%) No information available
Liquid Density No information available
Bulk density No information available
Particle Size No information available
Particle Size Distribution No information available

Section 10: Stability and reactivity

Reactivity

Reactivity None under normal use conditions.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

Incompatible materials

Incompatible materials Oxidising agent. Strong bases.

Hazardous decomposition products

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

Section 11: Toxicological information

Acute toxicity

Information on likely routes of exposure

Product Information

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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

Symptoms None known.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document mg/kg

Unknown acute toxicity No information available

100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

See section 16 for terms and abbreviations

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 sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: Ecological information

Ecotoxicity

Ecotoxicity	The environmental impact of this product has not been fully investigated
Unknown aquatic toxicity	100 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability

Persistence and degradability	No information available.
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Bioaccumulative potential

Bioaccumulation	Not likely to bioaccumulate.
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Mobility

Mobility in soil	No information available.
Mobility	No information available.

Other adverse effects

Other adverse effects	No information available.
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Section 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.

Section 14: Transport information

ADG

Not regulated

IATA

Not regulated

IMDG

Not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Australia

See section 8 for national exposure control parameters

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

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

DSL/NDL - 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

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

Section 16: Any other relevant information

Revision Date 26-Nov-2017

Revision Note

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Disclaimer

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End of Safety Data Sheet