We create chemistry

Safety Data Sheet
Ultrasint® PA11 rCF

1. Identification

Product identifier used on the label

Ultrasint® PA11 rCF

Recommended use of the chemical and restriction on use

Recommended use*: 3D Printing
Unsuitable for use: Uses other than recommended

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Combustible Dust Combustible Dust (1) Combustible Dust

Label elements

Signal Word:
Warning

Hazard Statement:

May form combustible dust concentration in air.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion. The product may cause burns, if handled in the melted state.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Milled Carbon Fibre
Content (W/W): >= 10.0 - < 30.0%
Synonym: Carbon

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing. If symptoms persist, seek medical advice.

If inhaled:
Keep patient calm, remove to fresh air.

If on skin:
Immediately wash thoroughly with soap and water, seek medical attention. Areas affected by molten material should be quickly placed under cold running water. Solidified product should not be pulled from the skin.

If in eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. If irritation develops, seek medical attention. Melted state: flush with planty of water. Do not try to remove the adhesive. Get medical attention!

If swallowed:
Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: No data available.
Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, alcohol-resistant foam, carbon dioxide, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
Dust explosion hazard.

Particles, not otherwise specified, respirable, hydrogen cyanide, carbon oxides, ammonia oxides, toxic gases/vapours
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:
Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid dust formation. Do not inhale dusts. Keep away from sources of ignition. Avoid contact with the skin, eyes and clothing. Information regarding personal protective measures, see section 8. Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.
Avoid raising dust. Dampen, pick up mechanically and dispose of. Dispose of absorbed material in accordance with regulations. Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling

Avoid dust formation. Avoid inhalation of dusts. Provide good ventilation of working area (local exhaust ventilation if necessary). Breathing must be protected when large quantities are decanted without local exhaust ventilation. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves.

Protection against fire and explosion:
Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Segregate from oxidants. Segregate from strong acids.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharges.
Protect from temperatures above: 60 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

carbon	ACGIH, US:	TWA value 2 mg/m3 Respirable fraction ;
	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;
	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	OSHA Z1:	PEL 15 mg/m3 Total dust ;
	OSHA Z1:	PEL 5 mg/m3 Respirable fraction ;
	OSHA Z3:	TWA value 15 millions of particles per cubic foot of air ;

The release and quantity of the stated substance is dependent on the processing conditions.

Particles, not otherwise specified, inhalable	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	OSHA Z3:	TWA value 15 mg/m3 Total dust ;
	OSHA Z3:	TWA value 50 millions of particles per cubic foot of air Total dust ;
Particles, not otherwise specified, respirable	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;
	OSHA Z3:	TWA value 5 mg/m3 Respirable fraction ;
	OSHA Z3:	TWA value 15 mg/m3 Total dust ;
	OSHA Z3:	TWA value 50 millions of particles per cubic foot of air Total dust ;
	OSHA Z3:	TWA value 15 millions of particles per cubic foot of air Respirable fraction ;

Advice on system design:
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory protection:
Wear a NIOSH approved (or equivalent) particulate respirator if ventilation is inadequate to control dust.

Hand protection:
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g., butyl rubber (butyl) - 0.7 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types., Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.

Eye protection:
In order to satisfy general industrial hygiene rules safety glasses with side-shields (e.g. EN 166) are recommended. Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

Antistatic safety shoes, Working clothes.

General safety and hygiene measures:
Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions. Avoid inhalation of dust. Ventilation should be sufficient to maintain inhalation exposures below OSHA PEL for particulates. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. When using do not eat or drink. When using do not smoke. Take off immediately all contaminated clothing. Avoid inhalation of dusts. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form:	powder
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
Colour:	black
pH value:	insoluble
melting range:	approx. 198 - 210 °C
Boiling point:	No applicable information available.
Flash point:	not applicable, the product is a solid

Flammability:	Not a flammable solid according to UN transport regulations division 4.1 and GHS chapter 2.7.
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Autoignition:	> 450 °C
Vapour pressure:	The product is a non-volatile solid.
Relative density:	No data available.
Bulk density:	440 kg/m3 (20 °C)
Vapour density:	The product is a non-volatile solid.
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Self-ignition temperature:	not self-igniting
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not applicable, the product is a solid
Viscosity, kinematic:	not applicable, the product is a solid
Particle size:	> 0.5 µm
Solubility in water:	(20 °C) insoluble
Evaporation rate:	The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

Conditions to avoid
Temperature: 60 degrees Celsius
Avoid dust formation. Avoid deposition of dust. Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static charge. Avoid humidity.

Incompatible materials
oxidizing agents, strong acids, strong bases, halogens

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: hydrogen cyanide, Prolonged thermal loading can result in products of degradation being given off., monomers, gases/vapours, oxides, hydrocarbons, cyclic low molecular weight oligomers

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Assessment other acute effects
Assessment of STOT single:
Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Exposure to high concentrations can cause eye, skin or respiratory irritations.

Sensitization
Assessment of sensitization: Based on available data, the classification criteria are not met.

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

Genetic toxicity
Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity
Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity
Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Teratogenicity
Assessment of teratogenicity: Based on available data, the classification criteria are not met.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components. Dust may cause mechanical irritation.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
At the present state of knowledge, no negative ecological effects are expected.
Based on available data, the classification criteria are not met.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential
The product has not been tested.

Bioaccumulation potential
The product will not be readily bioavailable due to its consistency and insolubility in water.

Mobility in soil

Assessment transport between environmental compartments
Adsorption to solid soil phase is expected.

Additional information

Other ecotoxicological advice:
The product has not been tested. The statement has been derived from the properties of the individual components. The product has been assessed on the basis of the components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations. Contact specialized companies about recycling.

Container disposal:
Dispose of in accordance with national, state and local regulations.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK	CAS Number	Chemical name
NJ	7440-44-0	carbon
PA	7440-44-0	carbon
	1333-86-4	carbon black

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [≤ 10 MICROMETERS]), which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
Health: 1 Fire: 3 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2023/02/28

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. Any other intended applications should be discussed with the manufacturer.

END OF DATA SHEET