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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

KRONES creadditive FIL 14 01

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

Relevant identified uses of the substance or mixture

3D Printing

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

KIC KRONES Internationale Cooperationsgesellschaft mbH

Böhmerwaldstraße 5 93073 Neutraubling

Telephone no. +49 9401 70-3020 Fax no. +49 9401 70-3696 e-mail kic@kic-krones.com

Advice on Safety Data Sheet

sdb info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

In case of transport incidents and other emergencies:

+44 (0) 1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

Not relevant

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Thermoplastic polyurethane

Hazardous ingredients

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Most of the hazards come from the molten, hot product. Remove contaminated clothing and shoes and launder

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thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation

Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact

After contact with molten product, cool quickly with cold water. Do not pull solidified product from skin. Seek medical attention.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get medical attention if pain still persists.

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Contact with molten material may cause thermal burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam; Carbon dioxide; Water spray jet; Dry chemical extinguisher

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Toxic gases/vapours; Carbon monoxide and carbon dioxide; Nitrogen oxides (NOx); Hydrogen cyanide (HCN); isocyanates

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Do not inhale vapours/aerosols.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Allow to set, pick up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out

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bodily contact or the release of hazardous substances. Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid contact with skin and eyes.

General protective and hygiene measures

Avoid contact of molten material with skin. Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale vapours.

Advice on protection against fire and explosion

Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight.

Recommended storage temperature

Value -20 - 30 °C

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.					
1	Limestone	1317-65-3		215-279-6					
	List of approved workplace exposure limits (WELs) / EH40								
	Calcium carbonate inhalable dust								
	WEL long-term (8-hr TWA reference period)	10	mg/m³						
	List of approved workplace exposure limits (WELs) / EH40								
	Calcium carbonate respirable dust								
	WEL long-term (8-hr TWA reference period)	4	mg/m³						
2	CARBON BLACK	1333-86-4		215-609-9					
	List of approved workplace exposure limits (WELs) /	EH40							
	Carbon black								
	WEL short-term (15 min reference period)	7	mg/m³						
	WEL long-term (8-hr TWA reference period)	3.5	mg/m³						
3	aluminium oxide	1344-28-1		215-691-6					
	List of approved workplace exposure limits (WELs) /	EH40							
	Aluminium oxides								
	total inhalable dust								
	WEL long-term (8-hr TWA reference period)	10	mg/m³						
	List of approved workplace exposure limits (WELs) / EH40								
	Aluminium oxides								
	respirable dust								
	WEL long-term (8-hr TWA reference period)	4	mg/m³						
4	titanium dioxide; [not containing 1 % or more of particles with aerodynamic diameter ≤ 10 μm]	13463-67-7		236-675-5					
	List of approved workplace exposure limits (WELs) / EH40								
	Titanium dioxide total inhalable dust								
	WEL long-term (8-hr TWA reference period)	10	mg/m³						
	List of approved workplace exposure limits (WELs) /		9,						
	Titanium dioxide respirable dust								
	WEL long-term (8-hr TWA reference period)	4	mg/m³						
5	copper chromite black spinel, C.I. Pigment Black 28	68186-91-4	<u> </u>	269-053-7					
	2006/15/EC								

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Chromium Metal, Inorganic Chromium (II) Compounds and Inorganic Chromium (III) Compounds (insoluble)					
WEL long-term (8-hr TWA reference period)	2	mg/m³			
List of approved workplace exposure limits (WELs) / EH40					
Copper and compounds (as Cu) dusts and mists					
WEL short-term (15 min reference period)	2	mg/m³			
WEL long-term (8-hr TWA reference period)	1	mg/m³			

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour						
solid; Filament						
white						
Odour						
No data available						
Odour threshold						
No data available						
pH value						
No data available						
Boiling point / boiling range						
No data available	No data available					
Melting point / melting range						
No data available						
Decomposition point / decomposition range						
Value	>	400	°C			
Flash point						
No data available						
Ignition temperature						
Value	>	230	°C			
Auto-ignition temperature						
Value		220	°C			

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Oxidising properties

No data available

Explosive properties

No data available

Flammability (solid, gas)

No data available

Lower flammability or explosive limits

No data available

Upper flammability or explosive limits

No data available

Vapour pressure

No data available

Vapour density

No data available

Evaporation rate

No data available

Relative density

No data available

Density

Value 1.22 g/cm³

Solubility in water

Comments insoluble

Solubility(ies)

No data available

Soluble in

organic solvents

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

9.2 Other information

Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

None, if handled according to intended use.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

No data available.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

No data available

Acute dermal toxicity

No data available

Acute inhalational toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)

No data available

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)

No data available

Toxicity to Daphnia (chronic)

No data available

Toxicity to algae (acute)

No data available

Toxicity to algae (chronic)

No data available

Bacteria toxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

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No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

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According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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