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Safety Data Sheet dated 19/2/2019, version 5

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

1.1. Product identifier

Mixture identification:

Trade name:

Efcolor

Trade code:

9370033/9371033

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

Electrostatic powder coating for no thermo-sensitive surfaces only - For industrial use only.

1.3. Details of the supplier of the safety data sheet

Company:

efco creative GmbH Große Ahlmühle 10 76865 Rohrbach

Telefon: +49 (0)6349 99340 Telefax: +49 (0)6349 99327

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

Dust explosion hazard if LEL (lower explosion limit,

see Subsection 9.1) is exceeded



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SECTION 3: Composition/information on ingredients

3.1. Substances

Not Applicable

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification	
>= 10% - < 12.5%	Titanium dioxide	CAS: EC:	13463-67-7 236-675-5	Substance with a Union workplace exposure limit.	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.

- 4.2. Most important symptoms and effects, both acute and delayed
- 4.3. Indication of any immediate medical attention and special treatment needed Treatment: None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

Water.

5.2. Special hazards arising from the substance or mixture

Avoid accumulating electrostatic charge.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment and precautions for fire-fighters

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Use a mask, gloves and protective clothing. Remove persons to safety.



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See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. If the product has escaped into a water course, into the drainage system, or has contaminated

the ground or vegetation, notify the competent authorities.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with an electrically protected vacuum

cleaner or with a natural bristle scrubbing brush. Retain contaminated washing water and dispose it.

Recover if possible. In so doing, comply with the local and national regulations currently in force.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhaltion of vapours and mists.

Do not pour the product into other containers. Always use the original container.

Do not smoke while working. Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Always keep the containers tightly closed.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Safety electric system.

Incompatible materials:

Avoid all contact with water or with moist air.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from combustible materials.

It may catch fire on contact with powerful oxidising agents.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Titanium dioxide - CAS: 13463-67-7

- OEL Type: EU - TWA(8h): 10 mg/m3

- OEL Type: ACGIH - TWA(8h): 10 mg/m3 - Notes: A4 - LRT irr

DNEL Exposure Limit Values

Titanium dioxide - CAS: 13463-67-7

Worker Professional: 10 mg/kg

PNEC Exposure Limit Values

Titanium dioxide - CAS: 13463-67-7

Target: Fresh Water - Value: 0.127 mg/l Target: Marine water - Value: 1 mg/l

Target: Freshwater sediments - Value: 1000 mg/kg Target: Marine water sediments - Value: 100 mg/kg

Target: Soil (agricultural) - Value: 100 mg/kg



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8.2. Exposure controls

Eye protection:

Use close fitting safety goggles and/or visor conforming to BS 2092 GRADE 1).

Protection for skin:

Light protective clothing antistatic.

Chemical protection clothing.

Protection for hands:

Gloves for protection from chemical risks.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Thermal Hazards:

None

Environmental exposure controls:

Inhalable dust.

Respirable dust.

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Appearance and colour:	Not Applicable	-	••
Odour:	Not Applicable		
Odour threshold:	Not Applicable	**	**
pH:	Not Applicable		5÷
Melting point / freezing point:	< 50 °C	<u>••</u> 83	-
Initial boiling point and boiling range:	>250 ℃	220	3 22
Flash point:	Not Applicable	-	
Evaporation rate:	Not Applicable	••	RESS
Solid/gas flammability:	Not Applicable		37.0
Upper/lower flammability or explosive limits:	30-90 g/m3		
Vapour pressure:	Not Applicable	945)	
Vapour density:	Not Applicable	#K	
Relative density:	1,60 g/cm3	123	



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Solubility in water:	Not Applicable	** :	144
Solubility in oil:	Not Applicable		
Partition coefficient (n- octanol/water):	Not Applicable		
Auto-ignition temperature:	Not Applicable	<i>u</i>	-
Decomposition temperature:	>250℃		***
Viscosity:	Not Applicable	-	
Explosive properties:	Not Applicable	-	
Oxidizing properties:	Not Applicable		

9.2. Other information

Properties	Value	Method:	Notes	
Miscibility:	Not Applicable			
Fat Solubility:	Not Applicable			
Conductivity:	Not Applicable	.c	-	
Substance Groups relevant properties	Not Applicable		20-1	

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Avoid accumulating electrostatic charge.

It may catch fire on contact with powerful oxidising agents.

Stable under normal conditions.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

10.5. Incompatible materials

Keep away from combustible materials.

Avoid all contact with water or with moist air.

It may catch fire on contact with powerful oxidising agents.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

10.6. Hazardous decomposition products

Carbon dioxide (CO2).



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Burning produces heavy smoke.

SECTION 11: Toxicological information

Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

c) serious eye damage/irritation

Not classified

Based on available data, the classification criteria are not met

d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met

e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

h) STOT-single exposure

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Titanium dioxide - CAS: 13463-67-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LC50 - Route: Inhalation > 6.82 mg/l

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. 9370033/9371033

Not classified for environmental hazards

Based on available data, the classification criteria are not met

Titanium dioxide - CAS: 13463-67-7

a) Aquatic acute toxicity:



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Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96

12.2. Persistence and degradability

Not Applicable

12.3. Bioaccumulative potential

Not Applicable

12.4. Mobility in soil

Not Applicable

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

ADR-Enviromental Pollutant:

No No

IMDG-Marine pollutant: 14.6. Special precautions for user

Not Applicable

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

Not Applicable

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)



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Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

Restriction 30 Restriction 66

Where applicable, refer to the following regulatory provisions:

Dir. 2004/42/EC (VOC directive) Directive 2012/18/EU (Seveso III)

Dir. 2004/42/EC (VOC directive)

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefährdend Stoffe)

WGK1 - Slightly hazardous for water

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Paragraphs modified from the previous revision:

SECTION 9: Physical and chemical properties

SECTION 15: Regulatory information SECTION 16: Other information

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,

Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.



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DNEL:

Derived No Effect Level.

EINECS:

European Inventory of Existing Commercial Chemical Substances.

GefStoffVO:

Ordinance on Hazardous Substances, Germany,

GHS:

Globally Harmonized System of Classification and Labeling of

Chemicals.

IATA:

International Air Transport Association.

IATA-DGR:

Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO:

International Civil Aviation Organization.

ICAO-TI:

Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: INCI: International Maritime Code for Dangerous Goods. International Nomenclature of Cosmetic Ingredients.

KSt:

Explosion coefficient.

LC50:

Lethal concentration, for 50 percent of test population.

LD50:

Lethal dose, for 50 percent of test population.

PNEC:

Predicted No Effect Concentration.

RID:

Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL:

Short Term Exposure limit. Specific Target Organ Toxicity.

STOT: TLV:

Threshold Limiting Value.

TWA: WGK: Time-weighted average German Water Hazard Class.