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

1.1. Product identifier

Substance name: CRAYVALLAC® PF
REACH Registration Number: 01-2119498298-18-0009

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

Use of the Substance/Mixture : Additive for :
Paint, Coatings, Inks, Adhesives

1.3. Details of the supplier of the safety data sheet

Supplier

ARKEMA
420 rue d'Estienne d'Orves
92705 Colombes Cedex, FRANCE
Telephone: +33 1 49 00 80 80
Telefax: +33 1 49 00 83 96
E-mail address: pars-drp-fds@arkema.com
http://www.arkema.com

1.4. Emergency telephone number

+ 33 1 49 00 77 77
European emergency phone number: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008):

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Label elements (REGULATION (EC) No 1272/2008):

Additional information:No label necessary for this product.

2.3. Other hazards

Potential health effects:
Irritation: Slightly irritating to skin. Slightly irritating to eyes

Environmental Effects:
Readily biodegradable.

Physical and chemical hazards:
In the presence of an ignition source: Dust may form explosive mixture in air. Thermal decomposition giving toxic products.
Decomposition products: See chapter 10

Other:

Results of PBT and vPvB assessment :
According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

Endocrine disrupting properties - Health :
Based on the available information, it is not possible to conclude on the endocrine disruptor potential.

Endocrine disrupting properties - Environment :

Based on the available information, it is not possible to conclude on the endocrine disruptor potential.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1.Substances

Micronized wax

[1]: See chapter 14 for Proper Shipping Name

SECTION 4: FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:
Take off immediately all contaminated clothing (including shoes).

Inhalation:
Dust inhalation: Blow nose.
Move to fresh air. If symptoms persist, call a physician.

Skin contact:
Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Eye contact:
Dusts : Wash well-open eyes immediately, abundantly and thoroughly with water. Remove particles remaining under the eyelids. If irritation persists, consult an ophthalmologist.

Ingestion:
In case of problems : Consult a doctor.

Protection of first-aiders:
Protective clothing and impermeable gloves. Dusts : In case of insufficient ventilation, wear suitable respiratory equipment.
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed: No data available.

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

Treatment: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Foam, carbon dioxide, dry powder extinguishers.

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture:

In the event of fire and/or explosion do not breathe fumes.
Formation of toxic products through combustion:, Carbon oxides
Dust may form explosive mixture in air.

5.3. Advice for firefighters:

Specific methods:
Keep containers and surroundings cool with water spray. Ensure a system for the rapid emptying of containers. In case of fire nearby, remove the bags.

Special protective actions for fire-fighters:
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Evacuate personnel to safe areas. Prohibit all sources of sparks and ignition - Do not smoke. Avoid contact with skin and eyes and inhalation of dust. Wear a dust mask and safety glasses/goggles if necessary. In case of insufficient ventilation, wear suitable respiratory equipment.

6.2. Environmental precautions:
Should not be released into the environment. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up:

Recovery:
Shovel into suitable container for disposal. Sweep up to prevent slipping hazard. No sparking tools should be used.

Elimination:
Destroy the product by incineration (in accordance with local and national regulations).

6.4. Reference to other sections: None.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:
Storage and handling precautions applicable to products: Solid. DUST FORMING, forming EXPLOSIVE mixtures with air(In the presence of an ignition source).
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide showers, eye-baths Provide water supplies near the point of use. Provide electrical earthing of equipment.

Safe handling advice:
Avoid dust accumulation in enclosed space. Avoid creating dust. In case of dust formation, wear a dust mask. Avoid charging as a dust shower – risk of product flammability. Prohibit all sources of sparks and ignition - Do not smoke. Take precautionary measures against static discharges. In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:
Avoid contact with the skin and the eyes. When using do not eat, drink or smoke. Avoid breathing dust.
Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:
Keep tightly closed in a dry and cool place. Store in original container. Store away from heat and ignition sources. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres.

Incompatible products:
Strong oxidizing agents

Packaging material:
Recommended: Metals
To be avoided: Plastic materials

7.3. Specific end use(s): None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values (dust)

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	03 2014	TWA	–	3	Respirable particles.
ACGIH (US)	03 2014	TWA	–	10	Inhalable particles.

Exposure Limit Values Not relevant

Derived No Effect Level (DNEL):

End Use	Inhalation	Ingestion	Skin contact
Workers	336,75 mg/m3 (SE, LT) 336,75 mg/m3 (SE, LT)		47,75 mg/kg bw/day (SE, LT) 47,75 mg/kg (SE, LT)
Consumers	83,04 mg/m3 (SE, LT) 83,04 mg/m3 (SE, LT)		23,875 mg/kg bw/day (SE, LT) 23,875 mg/kg (SE, LT)

LE : Local effects, **SE** : Systemic effects, **LT** : Long term, **ST** : Short term

Predicted No Effect Concentration:
This information is not required.

8.2. Exposure controls:
General protective measures: Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Appropriate engineering controls: Provide appropriate exhaust ventilation at machinery.

Personal protective equipment:

Respiratory protection: Recommended Filter type: P2
Respirator must be worn if exposed to dust.
In the case of hazardous fumes, wear self contained breathing apparatus.

Hand protection: Impervious gloves
Protective gloves complying with EN 374.
Request information on glove permeation properties from the glove supplier., The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye/face protection: Face-shield, or, Safety glasses according to EN 166 - EN170, Eye wash bottle with pure water

Skin and body protection: Appropriate protective clothing.
Safety shoes

Environmental exposure controls:
Do not release into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	
Physical state (20°C):	solid
Form:	powder
Colour:	off-white
Odour:	odourless
Odour Threshold:	Not relevant
Melting point :	85,4 °C (OECD Test Guideline 102)
Boiling point/boiling range :	> 300 °C (OECD Test Guideline 103)
Flammability:	
Flammability (solid, gas):	Non flammable product (Standard A10)
Lower explosion limit :	No data available.
Upper explosion limit :	No data available.
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	> 300 °C
pH:	Not applicable
Viscosity, kinematic:	Not relevant
Viscosity, dynamic:	Not applicable
Water solubility:	< 0,00005 g/l insoluble at 20 °C (OECD Test Guideline 105)
Solubility in other solvents:	Slightly soluble in Most organic solvents
Partition coefficient: n-octanol/water:	log Kow : 18,75 (calculated)
Vapour pressure:	negligible, at 20 °C
Density:	0,97 g/cm3 , at 20 °C
Relative vapour density:	No data available.
Particle characteristics:	
Particle size:	D20 : > 2 µm D80 : < 10 µm

9.2. Other information:

Bulk density:	between 400 - 600 kg/m3
pKA:	None.
Explosive properties:	
Explosivity:	In the presence of an ignition source: Dust may form explosive mixture in air.
Oxidizing properties:	Not relevant (due to its chemical structure)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:
Stable under recommended storage conditions.

10.2. Chemical stability:
The product is stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions:
In the presence of an ignition source: Dust may form explosive mixture in air.

10.4. Conditions to avoid:
Heat, flames and sparks. Avoid moisture.

10.5. Incompatible materials to avoid:
Strong oxidizing agents

10.6. Hazardous decomposition products:

Thermal decomposition:
Decomposition temperature: > 300 °C
Thermal decomposition can lead to release of irritating gases and vapours.
Formation of toxic products through combustion:, Carbon oxides

SECTION 11: TOXICOLOGICAL INFORMATION

All available data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:

Inhalation:	**Slightly harmful by inhalation**
• In animals :	No mortality/6 h/Rat: 1,86 mg/l, Through analogy with a comparable product :, Maximum concentration technically possible, No specific toxic effects (Aerosol)
Ingestion:	**Slightly harmful by ingestion**
• In animals :	No mortality/Rat: 2 g/kg (Method: OECD Test Guideline 401)
Dermal:	**Slightly harmful in contact with skin.**
• In animals :	No mortality/Rat: 2 g/kg (Method: OECD Test Guideline 402), No specific toxic effects ((Results obtained on a similar product).)

Local effects (Corrosion / Irritation / Serious eye damage):

Skin contact:	**Slightly irritating to skin.**
• In animals :	Through analogy with a comparable product : (OECD Test Guideline 404, Rabbit, Exposure time: 4 h)
Eye contact:	**Slightly irritating to eyes.**
• In animals :	Through analogy with a comparable product : (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation:	No data available.
Skin contact:	**Not a skin sensitizer**
• In animals :	Through analogy with a comparable product :, No skin allergy was observed (Method: OECD Test Guideline 406 Guinea pig maximization test)

CMR effects :

Mutagenicity: **Not genotoxic**

In vitro

Through analogy with a comparable product :, Inactive in genotoxic in vitro tests
In vitro gene mutation study in bacteria: (Method: OECD Test Guideline 471)
Tests for chromosome aberrations in vitro on mammalian cells: (Method: OECD Test Guideline 473)
In vitro gene mutations test on mammalian cells: (Method: OECD Test Guideline 476)

Carcinogenicity: No data available.

Reproductive toxicity:

Fertility: **Based on the available data, the substance is not suspected of having reprotoxic potential.**
Through analogy with a comparable product :

• In animals : Reproductive/Developmental Effects Screening Assay: Absence of toxic effects upon the reproductive system
NOAEL (Parental toxicity): 1.000 mg/kg bw/day
NOAEL (Fertility): 1.000 mg/kg bw/day
NOAEL (Developmental Toxicity): 1000 mg/kg bw/day
(Method: OECD Test Guideline 422, Rat, By oral route)

Specific target organ toxicity :

Single exposure : No data available.

Repeated exposure: **The substance or mixture is not classified as specific target organ toxicant, repeated exposure.**

Through analogy with a comparable product :
By diet: No adverse effects reported.
(rat and mouse, Subchronic)

• In animals : By diet: No specific toxic effects
NOAEL= 5g/kg bw/d (Method: OECD Test Guideline 408, Rat, 13 Weeks)

Aspiration hazard:

Not applicable

11.2. Information on other hazards:

Endocrine disrupting properties: **Based on the available information, it is not possible to conclude on the endocrine disruptor potential.**

Other information: Not relevant

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicology Assessment: All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

12.1. Toxicity :

Fish: **No effect up to the limit of solubility**
LL50, 96 h (Danio rerio (zebra fish)) (Method: ISO 7346/1) No effect up to the limit of solubility.

Aquatic invertebrates: **No effect up to the limit of solubility**
May be considered as comparable to a similar product for which experimental results are:
48 h (Daphnia magna (Water flea)) (Method: Directive 67/548/EEC, Annex V, C.2., Immobilization) No effect up to the limit of solubility

Aquatic plants: **No effect up to the limit of solubility**
May be considered as comparable to a similar product for which experimental results are:
72 h (Desmodesmus subspicatus (green algae)) (Method: Directive 67/548/EEC, Annex V, C.3., Growth inhibition) No effect up to the limit of solubility

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates: May be considered as comparable to a similar product for which experimental results are:21 d
(Daphnia magna (Water flea)) (Method: OECD Test Guideline 202 - Part 2, Reproduction inhibition) No effect up to the limit of solubility

Aquatic plants: May be considered as comparable to a similar product for which experimental results are:
72 h (Desmodesmus subspicatus (green algae)) (Method: Reported data, growth rate inhibition) No effect up to the limit of solubility

12.2. Persistence and degradability :

Biodegradation (In water): **Readily biodegradable**
Readily biodegradable: 64 % after 28 d (Method: ISO 10708)

12.3. Bioaccumulative potential :

Bioaccumulation: **Low potential to bioaccumulate**
Partition coefficient: n-octanol/water: log Kow : 18,75 (Method: calculated)

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure: negligible, at 20 °C,

Absorption / desorption: log Koc: 10,34 - 11,65 (Method: calculated)

12.5. Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

12.6. Endocrine disrupting properties:

Based on the available information, it is not possible to conclude on the endocrine disruptor potential.
No data available

12.7. Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Disposal of product: The product should not be allowed to enter drains, water courses or the soil. Dispose of contents or container to an approved waste disposal plant. In accordance with local and national regulations.

Disposal of packaging: Do not release into the environment. Recycle or incinerate at an approved waste disposal site. In accordance with local and national regulations.

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)

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

15.2. Chemical safety assessment:
A Chemical Safety Assessment has been carried out for this substance.

INVENTORIES:

European union/EEA : In the event of purchase from an Arkema legal entity based in the European Economic Area (EEA), it is established that this product complies with the registration provisions of REACH Regulation (EC) No. 1907/2006, given that all of its components are excluded, exempted and / or registered. If purchasing from a legal entity established outside the EEA, please contact your local representative for more information.

TSCA (USA) : The components of this product are all on the TSCA Inventory
DSL/NDSL (CA) : All components of this product are on the Canadian DSL
IECSC (CN) : All components of this product are listed or exempted
ENCS (JP) : All components of this product are listed or exempted
ISHL (JP) : All components of this product are listed or exempted
KECI (KR) : All components of this product are listed or exempted
PICCS (PH) : All components of this product are listed or exempted
NZIOC (NZ) : All components of this product are listed or exempted
AIIC (AU) : All components of this product are listed or exempted
TCSI (TW) : All components of this product are listed or exempted

SECTION 16: OTHER INFORMATION

Update:

Safety datasheet sections which have been updated:		Type:
	General update of Safety Data Sheet.	
	REGULATION (UE) N°2020/878	

Thesaurus:
NOAEL : No Observed Adverse Effect Level (NOAEL)
LOAEL : Lowest Observed Adverse Effect Level (LOAEL)
bw : Body weight
food : oral feed
dw : Dry weight
vPvB : very Persistent and very Bioaccumulative
PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).