1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the product

Substance name: CRAYVALLAC WF-1000 NF
REACH Registration Number: According to REACH regulation, article 2(9), the substance does not require registration.

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

Arkema France
Coatings Resins
420, rue d'Estienne d'Orves
F-92705 Colombes Cedex
France
Tel : +33 (0)1 49 00 80 80
Fax : +33 (0)1 49 00 83 96
http://www.arkema.com

E-mail address: pars-drp-fds@arkema.com

1.4. Emergency telephone number

+33 1 49 00 77 77
Numéro d'appel d'urgence européen : 112
ORFILA : 01 45 42 59 59

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.

Classification (Directive 67/548/EEC):

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2. Label elements

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

No label necessary for this product.

2.3. Other hazards

Potential health effects:
Irritation: Possible irritation of respiratory system (by dust inhalation).
Eye contact: Risk of eye irritation. (Physical effect of dust)

Physical and chemical hazards:
Dust may form explosive mixture in air. At high temperature : Thermal decomposition giving toxic products.
Decomposition products: See chapter 10

Other:
Results of PBT and vPvB assessment : This information is not required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical name of the substance[1]**:** CRAYVALLAC WF-1000 NF
Micronized wax

[1]: See chapter 14 for Proper Shipping Name

4. FIRST AID MEASURES

4.1. & 4.2. Description of necessary first-aid measures & Most important symptoms/effects, acute and delayed:

Inhalation:
Inhalation of vapours due to thermal decomposition : Move to fresh air. Put under medical surveillance, even if without initial problems
Dust inhalation: Blow nose. In case of persistent problems : Consult a doctor quickly.

Skin contact:
Wash off with soap and water. On contact with hot product : Cool skin rapidly with cold water after contact with molten material. In case of adhesion, do not try to remove the product. Treat the affected areas as thermal burns. Consult a physician.

Eye contact:
On contact with hot product : Wash off immediately with plenty of water. Consult an ophthalmologist immediately. Dusts : Wash well-open eyes immediately, abundantly and thoroughly with water. If eye irritation persists, consult a specialist.

Ingestion:
In case of problems : Consult a doctor.

Protection of first-aiders:
In case of insufficient ventilation, wear suitable respiratory equipment.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Hazards: If thermal decomposition of this product occurs releasing HF, additional first aid measures are required.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray

Unsuitable extinguishing media: High volume water jet, Fine dust dispersed in air may ignite, risk of dust explosion

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition giving toxic and corrosive products, Carbon oxides, hydrofluoric acid
Dust may form explosive mixture in air.

5.3. Advice for firefighters:

Specific methods:
Ensure a system for the rapid emptying of containers. In case of fire, remove exposed containers.

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:

Effective dust mask. Do not breathe vapours/dust. Do not smoke.

6.2. Environmental precautions:

Do not release into the environment. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up:

Recovery:
Recover the product. Sweep up to prevent slipping hazard. No sparking tools should be used.

Elimination:
Recycle if possible.

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:
Storage and handling precautions applicable to products: Solid. Dust forming. Dust may form explosive mixture in air. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide showers, eye-baths. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres.

Safe handling advice:
Avoid dust formation. Avoid accumulation of static charges during transfers in metallic systems. Prohibit all sources of sparks and ignition - Do not smoke. Keep well away from naked flames. At all stages of the operation, do not exceed the temperature at which decomposition into toxic and corrosive products will occur.

Hygiene measures:
Do not breathe dust. Product handled when hot : Avoid contact with skin and eyes and inhalation of vapours. When using do not eat, drink or smoke.
Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Remove all sources of ignition. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres.

Incompatible products:
Strong oxidizing agents, strong bases

Packaging material:
Recommended: Cardboard lined with polyethylene liner

7.3. Specific end uses: None.

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)	2008	TWA	–	10	Inhalable particles.
ACGIH (US)	2008	TWA	–	3	Respirable particles.

Exposure Limit Values Not relevant

Products of decomposition:

Hydrogen fluoride

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	12 2009	STEL	3	2,5	Indicative value
EU ELV	12 2009	TLV	1,8	1,5	Indicative value
ACGIH (US)	2008	TWA	0,5	–	as F
ACGIH (US)	2008	Ceiling	2	–	as F
ACGIH (US)	2008	SKIN	–	–	Can be absorbed through the skin.

Derived No Effect Level (DNEL):
According to REACH regulation, article 2(9), the substance does not require registration.

Predicted No Effect Concentration:
According to REACH regulation, article 2(9), the substance does not require registration.

8.2. Exposure controls:

General protective measures: Ensure ventilation of work areas and extraction of dust or vapours likely to be given off during conversion operations (product handled when hot).

Personal protective equipment:

Respiratory protection:	Effective dust mask. Recommended Filter type: P2 In the case of hazardous fumes, wear self contained breathing apparatus.
Hand protection:	Gloves
Eye/face protection:	Safety glasses
Skin and body protection:	Protective suit

Environmental exposure controls: See chapter 6

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
Olfactory threshold:	Not relevant
pH:	not applicable
Melting point/range :	320 - 330 °C
Boiling point/boiling range:	No data available.
Flash point:	Not relevant
Evaporation rate:	not applicable
Flammability (solid, gas):	No data available.
Vapour pressure:	No data available.
Vapour density:	No data available.
Relative density:	No data available.
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available.
Autoignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity, dynamic:	not applicable
Explosive properties:	
Explosivity:	Dust may form explosive mixture in air.
Oxidizing properties:	Not relevant (due to the chemical structure)

9.2. Other data:

Solubility in other solvents:	Soluble in most organic solvents

10. STABILITY AND REACTIVITY

10.1. & 10.2. Reactivity & Chemical stability:
The product is stable at normal handling and storage temperatures.

10.3. Possibility of hazardous reactions:
Dust can form an explosive mixture in air.

10.4. Conditions to avoid:
Keep away from heat and sources of ignition.

10.5. Incompatible materials to avoid:
Strong oxidizing agents, strong bases, At high temperature : risk of violent reaction (decomposition)

10.6. Hazardous decomposition products:
Thermal decomposition giving toxic and corrosive products :, Carbon oxides, hydrofluoric acid

11. TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

11.1. Information on toxicological effects:

Acute toxicity:

Inhalation:

HYDROGEN FLUORIDE :

At high vapour/mist concentrations, Severely irritating to respiratory system, Risk of pulmonary oedema, Delayed effects possible

• In animals : LC50/10 min/rat: 3.847 mg/l

Ingestion: **Can be considered as : Slightly harmful by ingestion**

Dermal: **Can be considered as : Slightly harmful in contact with skin**

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

Skin contact: **Can be considered as : Slightly or not irritating to skin**
Contact with the product, when handled at high temperatures, can cause serious burns.
At high temperature, products of thermal decomposition can be irritating to skin

HYDROGEN FLUORIDE :

Corrosive to skin
General failure if serious burns, Delayed effects, Secondary necrosis of tissues

Eye contact: **Can be considered as : Slightly or not irritating to eyes**
(Physical effect of dust)
At high temperature, products of thermal decomposition can be irritating to eyes

Respiratory or skin sensitization:

Inhalation: No data available.

Skin contact: No data available.

CMR effects : **No particular problems for man**

Specific target organ toxicity :
Single exposure :

Inhalation:

Dust inhalation:
Risk of irritation of respiratory system
At high temperature, products of thermal decomposition can be irritating to respiratory system

Repeated exposure: **No particular problems for man**
Effects of repeated exposure to dusts can include :
Risk of irritation of respiratory system

Aspiration hazard: Not relevant

12. ECOLOGICAL INFORMATION

12.1. Toxicity : No data available.

12.2. Persistence and degradability :

Biodegradation (In water): **Not biodegradable on the basis of its structure**

12.3. Bioaccumulative potential : No data available.

12.4. Mobility in soil - Distribution among environmental compartments: No data available.

12.5. Results of PBT and vPvB assessment :

This information is not required.

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment:

Disposal of product: If recycling is not practicable, dispose of in compliance with local regulations. Provide a system to neutralize the fumes.

Disposal of packaging: Recycle if possible.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Safety data sheets: according to Regulation (EC) No. 1907/2006 and its amendment (453/2010)

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

15.2. Chemical Safety Assessment:
According to REACH regulation, article 2(9), the substance does not require registration.

INVENTORIES:
EINECS: Conforms to

16. OTHER INFORMATION

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).