

CRAYVALLAC® ULTRA

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Arkema Inc.
900 First Avenue
King of Prussia, Pennsylvania 19406

Arkema Coating Resins

Customer Service Telephone Number: (877) 331-6696
(Monday through Friday, 8:00 AM to 5:00 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300
(24 hrs., 7 days a week)
Medical: Rocky Mountain Poison Center: (866) 767-5089
(24 hrs., 7 days a week)

Product Information

Product name: CRAYVALLAC® ULTRA
Synonyms: Not available
Molecular formula: Complex mixture
Chemical family: Micronized wax
Product use: Additive for :Paints, Coatings, Inks, Adhesives

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: white
Physical state: solid
Form: powder
Odor: odourless

*Classification of the substance or mixture:

Inhalation: Acute toxicity, Category 4, H332
Inhalation: Specific target organ toxicity - repeated exposure, Category 2, H373
Chronic aquatic toxicity, Category 4, H413

*For the full text of the H-Statements mentioned in this Section, see Section 16.

CRAYVALLAC® ULTRA**GHS-Labeling**

Hazard pictograms:



Signal word:

Warning**Hazard statements:**

H332 : Harmful if inhaled.

H373 : May cause damage to organs through prolonged or repeated exposure if inhaled.

H413 : May cause long lasting harmful effects to aquatic life.

Supplemental Hazard Statements:Specific target organ toxicity - repeated exposure:
lungs.

May form combustible dust concentrations in air.

Precautionary statements:**Prevention:**

P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P271 : Use only outdoors or in a well-ventilated area.

P273 : Avoid release to the environment.

Response:

P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P314 : Get medical advice/ attention if you feel unwell.

Disposal:

P501 : Dispose of contents or container to an approved waste disposal plant.

Supplemental information:**Potential Health Effects:**

Mechanical irritation effects from dust exposure are possible at ambient temperature.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product code: 800305

Version 2.3

Issued on: 11/14/2018

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| Chemical Name | CAS-No. | Wt/Wt | GHS Classification** |
|-----------------------|--------------|---------------|----------------------|
| Proprietary amide wax | Proprietary* | >= 80 % | H332, H373, H413 |
| Proprietary polymer | Proprietary* | >= 5 - < 10 % | Not classified |

*The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

**For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

Inhalation:

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin:

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

Immediately flush eye(s) with plenty of water.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms/effects, acute and delayed:

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information) and Section 11 (Toxicology Information) of this SDS.

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

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

5. FIREFIGHTING MEASURES

CRAYVALLAC® ULTRA**Extinguishing media (suitable):**

Water spray

Extinguishing media (unsuitable):

High volume water jet

Protective equipment:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:

Do not use a solid stream of water.

A solid stream of water can cause a dust explosion.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Nitrogen oxides

Hazardous organic compounds

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Protective equipment:

Appropriate personal protective equipment is set forth in Section 8.

CRAYVALLAC® ULTRA**7. HANDLING AND STORAGE****Handling****General information on handling:**

Do not taste or swallow.
Avoid breathing dust.
Avoid prolonged contact with eyes, skin and clothing.
Keep away from heat, sparks and flames.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Avoid creating dust in handling, transfer or clean up.
Prevent dust accumulation.
Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.
Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
Container hazardous when empty.
Follow label warnings even after container is emptied.
RESIDUAL DUSTS MAY EXPLODE ON IGNITION.
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.
Improper disposal or reuse of this container may be dangerous and/or illegal.
Emptied container retains product residue.

Storage**General information on storage conditions:**

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.

Storage stability – Remarks:

Stable under recommended storage conditions.

Storage incompatibility – General:

Store separate from:
Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Airborne Exposure Guidelines:****Particles Not Otherwise Specified / Nuisance Dust (Proprietary)**

US. ACGIH Threshold Limit Values

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| | |
|-----------------------|-----------------------|
| Form: | Inhalable particles. |
| Time weighted average | 10 mg/m ³ |
| Form: | Respirable particles. |
| Time weighted average | 3 mg/m ³ |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| | |
|-------|----------------------|
| Form: | Respirable fraction. |
| PEL: | 5 mg/m ³ |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| | |
|-------|----------------------|
| Form: | Total dust |
| PEL: | 15 mg/m ³ |

US. OSHA Table Z-3 (29 CFR 1910.1000)

| | |
|-----------------------|---|
| Form: | Respirable fraction. |
| Time weighted average | 15millions of particles per cubic foot of air |

US. OSHA Table Z-3 (29 CFR 1910.1000)

| | |
|-----------------------|---|
| Form: | Total dust |
| Time weighted average | 50millions of particles per cubic foot of air |

US. OSHA Table Z-3 (29 CFR 1910.1000)

| | |
|-----------------------|----------------------|
| Form: | Respirable fraction. |
| Time weighted average | 5 mg/m ³ |

US. OSHA Table Z-3 (29 CFR 1910.1000)

| | |
|-----------------------|----------------------|
| Form: | Total dust |
| Time weighted average | 15 mg/m ³ |

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

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Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

Respiratory protection:

Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Eye protection:

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

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| 9. PHYSICAL AND CHEMICAL PROPERTIES |
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| | |
|-------------------------------------|---|
| Color: | white |
| Physical state: | solid |
| Form: | powder |
| Odor: | odourless |
| Odor threshold: | No data available |
| Flash point | > 149 °F (65 °C) (Method: Seta Flash Method) |
| Auto-ignition temperature: | > 842 °F (> 450 °C) (Method: Standard A16 (D. 92/69/EEC)) |
| Lower flammable limit (LFL): | No data available |
| Upper flammable limit (UFL): | No data available |
| pH: | No data available |

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| | |
|---|---|
| Density: | 1.02 g/cm ³ (68 °F (20 °C)) |
| Specific Gravity (Relative density): | 1.02 (68 °F (20 °C)) |
| Vapor pressure: | 19 mmHg (Method: OECD Test Guideline 104) |
| Boiling point/boiling range: | No data available |
| Melting point/range: | 250 °F (121 °C) |
| Freezing point: | No data available |
| Evaporation rate: | No data available |
| Solubility in water: | insoluble |
| Solubility in other solvents: [qualitative and quantitative] | Soluble in most organic solvents |
| Viscosity, dynamic: | No data available |
| Oil/water partition coefficient: | (No data available) |
| Thermal decomposition: | No data available |
| Flammability: | See GHS Classification in Section 2 |

10. STABILITY AND REACTIVITY**Stability:**

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

Hazardous reactions:

Hazardous polymerization does not occur.

Materials to avoid:

Strong oxidizing agents

Conditions / hazards to avoid:

Keep away from heat and sources of ignition.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products :

Carbon oxides

Nitrogen oxides

Hazardous organic compounds

CRAYVALLAC® ULTRA**11. TOXICOLOGICAL INFORMATION**

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

Inhalation:

4 h Acute toxicity estimate 3.75 mg/l. (dust/mist)

Data for Proprietary amide wax (Proprietary)**Acute toxicity****Oral:**

No deaths occurred. (rat) LD0 > 2,000 mg/kg.

Dermal:

No deaths occurred. (rat) LD0 > 2,000 mg/kg.

Inhalation:

Harmful if inhaled. (rat) 4 h LC50 = 3.56 mg/l. (dust/mist)

Skin Irritation:

Practically non-irritating. (rabbit) OECD Test Guideline 404 (4 h)

Eye Irritation:

Not irritating. (rabbit)

Skin Sensitization:

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed

Repeated dose toxicity

Repeated oral administration to rat / No adverse systemic effects reported.

Subchronic inhalation administration to rat / affected organ(s): lung / signs: increased organ weight, changes in organ structure or function / (similar to response for inert insoluble particulates)

Specific target organ toxicity - repeated exposure:

May cause damage to organs through prolonged or repeated exposure if inhaled. (lung)

Genotoxicity**Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells, human cells

Genotoxicity**Assessment in Vivo:**

No genetic changes were observed in a laboratory test using: rats

Developmental toxicity

Exposure during pregnancy. Oral (rat) / No birth defects were observed.

Reproductive effects

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No toxicity to reproduction.

CRAYVALLAC® ULTRA**Data for Proprietary polymer (Proprietary)****Acute toxicity****Oral:**

Practically nontoxic. LD50 > 5,000 mg/kg.

Dermal:

Practically nontoxic. LD50 > 5,000 mg/kg.

Skin Irritation:

Causes mild skin irritation.

Eye Irritation:

Causes mild eye irritation.

Other information

The information presented is from representative materials with this Chemical Abstract Service (CAS) Registry number. The results vary depending on the size and composition of the test substance.

12. ECOLOGICAL INFORMATION**Chemical Fate and Pathway**

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

Data for Proprietary amide wax (Proprietary)**Biodegradation:**

Not readily biodegradable. (29 d) biodegradation 9 % / OECD Test Guideline 301 B

Octanol Water Partition Coefficient:

log Pow: = 6.01

Ecotoxicology

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

Data for Proprietary amide wax (Proprietary)**Aquatic toxicity data:**

No effect up to the limit of solubility. *Oncorhynchus mykiss* (rainbow trout) 96 h LC50 > 100 mg/l (Nominal concentration, Water accommodated fraction was tested.)

Aquatic invertebrates:

No effect up to the limit of solubility. *Daphnia magna* (Water flea) 48 h LC50 > 100 mg/l (Nominal concentration, Water accommodated fraction was tested.)

Algae:

No effect up to the limit of solubility. *Pseudokirchneriella subcapitata* (green algae) 72 h EC50 > 100 mg/l (Nominal concentration, Water accommodated fraction was tested.)

Microorganisms:

Respiration inhibition / Activated sludge 3 h EC50 > 100 mg/l (Nominal concentration)

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Chronic toxicity to aquatic invertebrates:

No effect up to the limit of solubility. Daphnia magna (Water flea) 21 d NOEC r > 50 mg/l (Nominal concentration Water accommodated fraction was tested.)

Chronic toxicity to aquatic plants:

Pseudokirchneriella subcapitata (green algae) 72 h NOEC (Growth inhibition) = 100 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT): not regulated

International Maritime Dangerous Goods Code (IMDG): not regulated

15. REGULATORY INFORMATION

Chemical Inventory Status

| | | |
|--|------------|---|
| US. Toxic Substances Control Act | TSCA | The components of this product are all on the TSCA Inventory. |
| Canadian Domestic Substances List (DSL) | DSL | All components of this product are on the Canadian DSL |
| China. Inventory of Existing Chemical Substances in China (IECSC) | IECSC (CN) | Conforms to |
| Japan. ENCS - Existing and New Chemical Substances Inventory | ENCS (JP) | Does not conform |
| Japan. ISHL - Inventory of Chemical Substances | ISHL (JP) | Does not conform |
| Korea. Korean Existing Chemicals Inventory (KECI) | KECI (KR) | Conforms to |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | PICCS (PH) | Conforms to |
| Australia Inventory of Chemical Substances (AICS) | AICS | Conforms to |

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United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard, Fire Hazard

SARA Title III – Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

United States – State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

| <u>Chemical name</u> | <u>CAS-No.</u> |
|-----------------------|----------------|
| Proprietary amide wax | Proprietary |
| Proprietary polymer | Proprietary |

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

- H332 Harmful if inhaled.
- H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
- H413 May cause long lasting harmful effects to aquatic life.

Miscellaneous:

| | |
|--------------------|---|
| Other information: | Refer to National Fire Protection Association (NFPA) Code 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling. |
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CRAYVALLAC® ULTRA

Latest Revision(s):

Reference number: 200001071
Date of Revision: 11/14/2018
Date Printed: 11/15/2018

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Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.

It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.

