

PLEXIGLAS® PERFEXION UF5 COLORLESS**1. PRODUCT AND COMPANY IDENTIFICATION****Company**

Arkema Inc.
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King of Prussia, Pennsylvania 19406

Altuglas International

Customer Service Telephone Number: (800) 523-1532
(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: PLEXIGLAS® PERFEXION UF5 COLORLESS
Synonyms: Not available
Molecular formula: Mixture
Chemical family: Acrylic copolymers
Product use: Polymers industry, Special applications, in general

2. HAZARDS IDENTIFICATION**Emergency Overview**

Color: colourless
Physical state: solid
Form: sheets
Odor: odourless

***Classification of the substance or mixture:**

Specific target organ toxicity - repeated exposure, Category 2, H373

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

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 1 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

GHS-Labeling

Hazard pictograms:



Signal word:

Warning**Hazard statements:**

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

Supplemental Hazard Statements:Specific target organ toxicity - repeated exposure:
kidney, liver.

Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.

Precautionary statements:**Prevention:**

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

Response:

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:**

Contains high molecular weight polymer(s). Effects due to processing releases: Irritating to eyes, respiratory system and skin.

Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

Other:

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 2 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

Secondary operations, such as grinding, sanding or sawing, can produce dust which may present a respiratory hazard. (sheets) This product may release fume and/or vapor of variable composition depending on processing time and temperature.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Acrylic copolymers	Proprietary*	<= 100 %	Not classified
Proprietary component	Proprietary*	< 5 %	H412, H373

*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 victim to fresh air.

Skin:

In case of contact, immediately flush skin with plenty of water. If molten polymer gets on the skin, cool rapidly with cold water. Do not peel solidified product off the skin. Obtain medical treatment for thermal burns. Remove material from clothing. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

Immediately flush eye(s) with plenty of water. Obtain medical treatment for thermal burns.

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 if applicable) and Section 11 (Toxicology Information) of this SDS.

PLEXIGLAS® PERFEXION UF5 COLORLESS

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**Extinguishing media (suitable):**

Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

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:

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

Heated material can form flammable vapors with air.

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

Carbon oxides

Hazardous organic compounds

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

Pick up and transfer to properly labelled containers. 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.

PLEXIGLAS® PERFEXION UF5 COLORLESS**7. HANDLING AND STORAGE****Handling****General information on handling:**

Do not taste or swallow.
Avoid breathing dust.
Avoid breathing fumes or vapors.
Avoid prolonged contact with eyes, skin and clothing.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Emptied container retains product residue.
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Storage**General information on storage conditions:**

Avoid extreme temperatures. Keep in a dry, cool place.

Storage incompatibility – General:

Store away from sources of heat and light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Airborne Exposure Guidelines:****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.

Respiratory protection:

Avoid breathing dust. Avoid breathing fumes or vapors. 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 recommended). 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.

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 5 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

Wash thoroughly after handling.

Eye protection:

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	colourless
Physical state:	solid
Form:	sheets
Odor:	odourless
Odor threshold:	No data available
Flash point	Not applicable
Auto-ignition temperature:	860 °F (460 °C)
Lower flammable limit (LFL):	Not applicable
Upper flammable limit (UFL):	Not applicable
pH:	Not applicable
Density:	Not applicable
Specific Gravity (Relative density):	No data available
Vapor pressure:	No data available.
Vapor density:	No data available.
Boiling point/boiling range:	No data available
Melting point/range:	No data available
Freezing point:	No data available
Evaporation rate:	No data available
Solubility in water:	insoluble
Viscosity, dynamic:	No data available

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 6 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

% Volatiles:	0 %
Oil/water partition coefficient:	No data available.
Thermal decomposition:	> 572 °F (> 300 °C)
Flammability:	See GHS Classification in Section 2 if applicable

10. STABILITY AND REACTIVITY**Stability:**

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

Hazardous reactions:

None known.

Materials to avoid:

None under normal conditions of use.

Conditions / hazards to avoid:

Avoid flames, welding arcs, potential ignition sources, or other high temperature sources which induce thermal decomposition.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products :

Carbon oxides

Acrylates

Methacrylates

Hazardous organic compounds

11. TOXICOLOGICAL INFORMATION

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

Data for Acrylic copolymers (Proprietary)**Other information**

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

Effects due to processing releases or residual monomer:

Possible cross sensitization with other acrylates and methacrylates

Data for Proprietary component (Proprietary)**Acute toxicity**

Oral:

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 7 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

Practically nontoxic. (rat, mouse) LD50 > 5,000 mg/kg.

Inhalation:

No deaths occurred. (rat) 4 h LC0 > 0.75 mg/l. (dust/mist)

Skin Irritation:

Not irritating. (rabbit) Draize Test

Eye Irritation:

Not irritating. (rabbit) Draize Test

Skin Sensitization:

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

Not a sensitizer. Repeat Insult Patch Test (HRIPT).

Repeated dose toxicity

Subchronic dietary administration to Dog / affected organ(s): liver, kidney / signs: changes in organ weights, changes in organ structure or function

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

Specific target organ toxicity - repeated exposure:

May cause damage to organs through prolonged or repeated exposure. (kidney, liver)

Genotoxicity

Assessment in Vitro:

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

Human experience

Skin contact:

Skin: No skin allergy was observed. (repeated or prolonged exposure)

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

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

Data for Proprietary component (Proprietary)

Biodegradation:

Not readily biodegradable. (28 d) biodegradation 4 - 10 %

Ecotoxicology

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

Data for Proprietary component (Proprietary)

Aquatic toxicity data:

Practically nontoxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 > 100 mg/l

PLEXIGLAS® PERFEXION UF5 COLORLESS

Aquatic invertebrates:

Harmful. Daphnia magna (Water flea) 24 h EC50 = 16 mg/l

Algae:

Harmful. Scenedesmus subspicatus 72 h EC50 = 56 mg/l

Microorganisms:

Practically nontoxic. Respiration inhibition / Activated sludge 3 h IC50 > 100 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Where possible recycling is preferred to disposal or incineration. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Pigmented, filled and/or solvent laden product may require special disposal practices 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.

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)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 9 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

Philippines Inventory of Chemicals and Chemical Substances (PICCS) PICCS (PH) Conforms to

Australia Inventory of Chemical Substances (AICS) AICS Conforms to

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:

Chronic Health Hazard

SARA Title III – Section 313 Toxic Chemicals:

The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>Chemical name</u>	<u>CAS-No.</u>	<u>De minimis concentration</u>	<u>Reportable threshold:</u>
2-Propenoic acid, ethyl ester	140-88-5	0.1 %	10000 lbs (Otherwise used (non-manufacturing/processing)) 25000 lbs (Manufacturing and processing)

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

<u>Chemical name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
Methyl methacrylate	80-62-6	1000 lbs
2-Propenoic acid, ethyl ester	140-88-5	1000 lbs

United States – State Regulations

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 10 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

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>
Acrylic copolymers	Proprietary
Methyl methacrylate	80-62-6
2-Propenoic acid, ethyl ester	140-88-5

Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

<u>Chemical name</u>	<u>CAS-No.</u>
Methyl methacrylate	80-62-6
2-Propenoic acid, ethyl ester	140-88-5

Pennsylvania Right to Know – Special Hazardous Substance(s)

<u>Chemical name</u>	<u>CAS-No.</u>
2-Propenoic acid, ethyl ester	140-88-5

California Prop. 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

<u>Chemical name</u>	<u>CAS-No.</u>
2-Propenoic acid, ethyl ester	140-88-5

16. OTHER INFORMATION

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

- H373 May cause damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

Latest Revision(s):

Reference number:	200019942
Date of Revision:	12/14/2020
Date Printed:	12/15/2020

PLEXIGLAS® is a registered trademark of Arkema Inc.

Product code: 11729

Version 1.0

Issued on: 12/14/2020

Page: 11 / 12

PLEXIGLAS® PERFEXION UF5 COLORLESS

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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.