

Product: DURASTRENGTH® 480

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SDS No.: 005496-001 (Version 4.1)

Date 26.01.2021 (Cancel and replace : 18.12.2020)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Identification of the mixture: DURASTRENGTH® 480

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

Use of the Substance/Mixture : Impact modifier, Modification of thermoplastic polymers

1.3. Details of the supplier of the safety data sheet

Supplier	ARKEMA Coating Resins 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
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1.4. Emergency telephone number

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

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):

The product is put on the market on a form that encapsulates component(s) in a polymer., To our knowledge, product on this form shouldn't have any significant risk for health by inhalation, ingestion or contact with skin or for the environment., According to European classification and labelling regulation for hazardous substances and preparations, the product is not subjected to labelling although one/several component(s) is/are classified as hazardous.

2.3. Other hazards**Potential health effects:**

Inhalation: Inhalation of vapours due to thermal decomposition : Risk of irritation of respiratory system Toxic effects cannot be excluded
Skin contact: Slightly irritating to skin. Risk of skin sensitization.
Eye contact: Slightly irritating to eyes

Environmental Effects:

Inert polymer not biodegradable on the basis of its structure

Physical and chemical hazards:

In the presence of an ignition source: Dust may form explosive mixture in air.
Decomposition products: See chapter 10

Other:

Results of PBT and vPvB assessment : Based on the available information, it is not possible to conclude on PBT and vPvB criteria according to REACH regulation, annex XIII. This information is not required. Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****Chemical nature of the mixture¹:**

Preparation based on : ACRYLIC AND METHACRYLIC COPOLYMERS

Presence of additives

Hazardous impurities :

Chemical name ¹	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008
Benzenesulfonic acid, mono-C10-13-alkyl derivs., sodium salts	290-656-6	90194-45-9	< 1,5 %	Acute Tox.4 (Oral); H302 Eye Dam.1; H318 Skin Irrit.2; H315 Aquatic Chronic3; H412

¹: See chapter 14 for Proper Shipping Name

²: See the text of the regulation for applicable exceptions or provisions -

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

No hazards which require special first aid measures.

Inhalation:

Dust inhalation: Blow nose. Move to fresh air. In case of problems : Consult a physician.

Inhalation of vapours due to thermal decomposition : Move to fresh air. Oxygen or artificial respiration if needed. In case of problems : Consult a physician.

Skin contact:

Wash off with soap and water. In the case of skin irritation or allergic reactions see a physician.

On contact with hot product : Cool skin rapidly with cold water after contact with molten polymer. Remove product with vegetable oil or paraffin. In case of adhesion, do not try to remove the product. Treat the affected areas as thermal burns. Consult a physician. In case of extensive burns, hospitalize.

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.

On contact with hot product : Cool eyes rapidly with cold water after contact with molten polymer. Consult an ophthalmologist immediately.

Ingestion:

In case of problems : Consult a doctor.

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

4.3. Indication of immediate medical attention and special treatment needed, if necessary: No data available.

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 flammable and irritating products:

Methacrylates, Acrylates

Formation of toxic products through combustion: , Carbon oxides

5.3. Advice for firefighters:

Specific methods:

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:

Remove all sources of ignition. Avoid contact with the skin and the eyes. Avoid breathing dust. Wear a dust mask and safety glasses/goggles if necessary. In case of insufficient ventilation, wear suitable respiratory equipment.

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. After cleaning, flush away traces with water. Recover waste water for processing later.

Elimination:

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

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, 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 water supplies near the point of use. Provide showers, eye-baths Provide electrical earthing of equipment.

Safe handling advice:

Remove all sources of ignition. Avoid the formation and deposition of dust. In case of dust formation, wear a dust mask. Take precautionary measures against static discharges. Avoid charging as a dust shower – risk of product flammability. In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:

Avoid contact with the skin and the eyes. Avoid breathing dust. Product handled when hot : Avoid 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:

Store away from moisture and heat to maintain the technical properties of the product. Keep away from sources of ignition - No smoking. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres. Wash the premises regularly with water.

Incompatible products:

Strong oxidizing agents Powerful reducers Bases

Packaging material:

Recommended: Coated polypropylene big bags, Paper bags or Polyethylene, Drums coated inside with resin
In bulk :, Aluminium, Stainless steel

7.3. Specific end use(s): None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values Not relevant

Products of decomposition:

Methyl methacrylate

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	02 2017	STEL	100	–	Indicative value
EU ELV	02 2017	TWA	50	–	Indicative value
ACGIH (US)	02 2012	TWA	50	–	–
ACGIH (US)	02 2012	STEL	100	–	–

Derived No Effect Level (DNEL):

This information is not required.

Predicted No Effect Concentration:

This information is not required.

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:	Wear a dust mask if necessary. Recommended Filter type: P2
Hand protection:	Gloves (product handled when hot) Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.
Eye/face protection:	Safety glasses
Skin and body protection:	Protective clothing (product handled in molten state)

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:	white
Odour:	Monomers, very faint
Olfactory threshold:	No data available.
pH:	Not applicable
Melting point/range :	Not applicable
Boiling point/boiling range :	Not applicable (decomposes on heating)
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability (solid, gas):	No data available.
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Density:	1,090 kg/m ³ , at 23 °C
Bulk density:	250 - 500 kg/m ³
Water solubility:	insoluble at 20 °C
Partition coefficient: n-octanol/water:	BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS : log Kow : 3,32 (calculated)
Auto-ignition temperature:	approx. 470 °C
Decomposition temperature:	> 250 °C
Viscosity, dynamic:	Not applicable
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)

9.2. Other data: None.

10. STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

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. Exposure to moisture Exposure to light. (to maintain the technical properties of the product).

10.5. Incompatible materials to avoid:

Strong oxidizing agents, Powerful reducers, Bases

10.6. Hazardous decomposition products:

Thermal decomposition:

Decomposition temperature: > 250 °C

Thermal decomposition giving flammable and irritating products:

Methacrylates, Acrylates

Formation of toxic products through combustion:

Carbon oxides

11. TOXICOLOGICAL INFORMATION

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 toxicological effects:

Acute toxicity:

Inhalation:	Inhalation of vapours due to thermal decomposition:, Risk of irritation of respiratory system, Toxic effects cannot be excluded
Ingestion:	Polymer: According to its composition, this product should not be harmful in normal conditions of use
Dermal:	Polymer: According to its composition, this product should not be harmful in normal conditions of use

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

Skin contact:	According to its composition : Causes mild skin irritation.
BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS : • In animals :	Skin irritation (OECD Test Guideline 404, Rabbit)
Eye contact:	According to available experimental data: Slightly irritating to eyes.
• In animals :	Mild eye irritation (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation:	No data available.
Skin contact:	According to its composition : Risk of skin sensitization. Traces of :, Residual monomers

CMR effects :

Mutagenicity:	Based on the available information, it is not possible to conclude on the hazard potential of this mixture.
Carcinogenicity:	There is no data available for this product.
Reproductive toxicity:	
Fertility:	Based on the available data, the substance is not suspected of having reprotoxic potential.
Foetal development:	Based on the available data, the substance is not suspected of having developmental toxicity potential.

Specific target organ toxicity :

Single exposure :

Inhalation:	Inhalation of vapours due to thermal decomposition , Risk of irritation of respiratory system
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<u>Repeated exposure:</u>	Polymer: According to its composition, this product should not be harmful in normal conditions of use
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Aspiration hazard:

Not relevant

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. Acute toxicity :

Fish:	Based on the available information, it is not possible to conclude on the hazard potential of this mixture.
BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS : LC50, 96 h (Cyprinus carpio (Carp)) :	5,6 mg/l (Method: OECD Test Guideline 203)

Aquatic invertebrates: Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
EC50, 48 h (Daphnia magna (Water flea)) : 2,9 mg/l

Aquatic plants: Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
ErC50, 72 h (Scenedesmus subspicatus) : 36 mg/l (Method: OECD Test Guideline 201)

Microorganisms:

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
May be considered as comparable to a similar product for which experimental results are:
NOEC, 3 h (Activated sludge) : 100 mg/l

Sediment toxicity:

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
May be considered as comparable to a similar product for which experimental results are:
NOEC (Lumbriculus variegatus): 81 mg/kg dw (Method: OECD Test Guideline 225)

Aquatic toxicity / Long term toxicity:

Fish:

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
May be considered as comparable to a similar product for which experimental results are:
NOEC, 28 d (Fish) : 0,25 - 3,2 mg/l

Aquatic invertebrates:

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
May be considered as comparable to a similar product for which experimental results are:
NOEC (Daphnia magna (Water flea)) : 1,4 mg/l

Aquatic plants:

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
May be considered as comparable to a similar product for which experimental results are:
NOEC r, 72 h (Algae) : 0,4 mg/l

12.2. Persistence and degradability :

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

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
Readily biodegradable: 69 % after 28 d (Method: OECD Test Guideline 301 B)

12.3. Bioaccumulative potential :

Bioaccumulation: Based on the available information, it is not possible to conclude on the bioaccumulation potential of this mixture.

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
Partition coefficient: n-octanol/water: log Kow : 3,32 (Method: calculated)

BENZENESULFONIC ACID, MONO-C10-13-ALKYL DERIVS., SODIUM SALTS :
Bioconcentration factor (BCF): 22 - 87 (48 h, Method: OECD Test Guideline 305 E, Pimephales promelas (fathead minnow))

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure: Not applicable,

12.5. Results of PBT and vPvB assessment :

Based on the available information, it is not possible to conclude on PBT and vPvB criteria according to REACH regulation, annex XIII. This information is not required. Not applicable

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment:

- Disposal of product:** Do not dispose of waste into sewer. Recycle if possible. Destroy the product by incineration (in accordance with local and national regulations).
- Disposal of packaging:** Do not release into the environment. Recycle if possible. Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national regulations).

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

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:

This information is not required.

INVENTORIES:

- EINECS: Conforms to
TSCA: Conforms to
DSL: All components of this product are on the Canadian DSL
IECSC (CN): Conforms to
ENCS (JP): Conforms to
ISHL (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): The mixture contains a polymer. All the monomers for this polymer & other substances are listed on the inventory, Consult Arkema.
AICS: Conforms to
NZIOC: Does not conform

16. OTHER INFORMATION

Full text of H, EUH-phrases referred to under sections 2 and 3

- H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Update:

Safety datasheet sections which have been updated:		Type:
9	Explosive properties	Deletions
12	12. ECOLOGICAL INFORMATION	Revisions
15	Inventories	Revisions
1-16	General update of Safety Data Sheet.	Revisions

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).
