

**VC-20**

Version 2.0

Revision Date 09/17/2013

Ref. 130000001241

This SDS adheres to the standards and regulatory requirements of Argentina and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name	:	VC-20
Tradename/Synonym	:	CURATIVE 20
MSDS Number	:	130000001241
Product Use	:	Curing chemical
Manufacturer	:	DuPont Argentina S.R.L. Av. Ingeniero Butty, 240 Buenos Aires Argentina
Product Information	:	54-11-4021 4700
Medical Emergency	:	54-11-4021 4700
Transport Emergency	:	: (CIQUIME) 0800 222 2933

**SECTION 2. HAZARDS IDENTIFICATION**

## Potential Health Effects

## Skin

Benzyltriphenylphosphonium chloride : May cause skin irritation. May cause: Discomfort, itching, redness, or swelling..

## Eyes

Benzyltriphenylphosphonium chloride : Causes eye irritation. May cause: Tearing, pain, redness, swelling, ulceration, visual impairment, or blindness., May cause irreversible eye damage..

Barium sulfate : May irritate eyes. Dust may cause: mechanical irritation with tearing, pain or visual impairment.

## Inhalation

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Polyvinylidene fluoride/hexafluoropropene : Inhalation of decomposition products from overheating may cause lung irritation or shortness of breath. Fluid in the lungs (pulmonary oedema) with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin (symptoms might be delayed)

Repeated exposure  
Benzyltriphenylphosphonium chloride : Adverse effects from repeated inhalation may include: Respiratory tract damage

Barium sulfate : lung effects

Target Organ  
Benzyltriphenylphosphonium chloride : Respiratory Tract

Barium sulfate : Lungs

### Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Benzyltriphenylphosphonium chloride	1100-88-5	<35 %
Polyvinylidene fluoride/hexafluoropropene	9011-17-0	>60%
Limestone	1317-65-3	<4 %
Barium sulfate	7727-43-7	<1 %

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**SECTION 4. FIRST AID MEASURES**

- |                |   |                                                                                                                                                                      |
|----------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin contact   | : | Wash off with soap and water. Cool skin rapidly with cold water after contact with hot polymer. Do not peel polymer from the skin. Consult a physician if necessary. |
| Eye contact    | : | Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.                                                                                  |
| Inhalation     | : | Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Oxygen or artificial respiration if needed. Consult a physician.         |
| Ingestion      | : | If victim is conscious: Drink 1 or 2 glasses of water. Induce vomiting immediately and call a physician.                                                             |
| General advice | : | If symptoms persist, call a physician.                                                                                                                               |

**SECTION 5. FIREFIGHTING MEASURES**

- |                              |   |                                                                                                                                                                                                                                        |
|------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammable Properties         |   |                                                                                                                                                                                                                                        |
| Flash point                  | : | > 204 °C (> 399 °F) open cup                                                                                                                                                                                                           |
| Fire and Explosion Hazard    | : | Under conditions giving incomplete combustion, hazardous gases produced may consist of: Hydrogen fluoride Carbonyl fluoride Carbon monoxide Oxides of phosphorus Fluorocarbons Hydrogen chloride gas                                   |
| Suitable extinguishing media | : | Carbon dioxide (CO <sub>2</sub> ), Foam, Water, Dry chemical                                                                                                                                                                           |
| Firefighting Instructions    | : | Wear self-contained breathing apparatus and protective suit. Wear neoprene gloves during cleaning up work after a fire.<br>Evacuate personnel to safe areas. Do not allow run-off from fire fighting to enter drains or water courses. |

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

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- Safeguards (Personnel) : Ventilate the area. Refer to protective measures listed in sections 7 and 8.
- Spill Cleanup : Shovel into suitable container for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.
- Accidental Release Measures : Try to prevent the material from entering drains or water courses.

**SECTION 7. HANDLING AND STORAGE**

- Handling (Personnel) : Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.  
Do not breathe dust. Do not breathe fumes evolved from hot polymer.  
General precaution for all plastics and elastomers: Wash hands before breaks and at the end of workday. Regular cleaning of equipment, work area and clothing. When using do not eat, drink or smoke.
- Handling (Physical Aspects) : General precaution for all plastics and elastomers: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Avoid dust formation.
- Dust explosion class : no data available
- Storage : Keep in a dry, cool and well-ventilated place. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Engineering controls : Use only in area provided with appropriate exhaust ventilation.
- Personal protective equipment
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.  
Combination filter: Respiratory protection complying with EN 141.
- Hand protection : Material: Nitrile rubber  
Glove thickness: 0.38 mm  
Wearing time: 8 h  
Additional protection: Skin should be washed after contact.
- Eye protection : Tightly fitting safety goggles

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Skin and body protection : Preventive skin protection  
Wear as appropriate:  
impervious clothing  
If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.  
If used above 315°C the surface may contain hydrogen fluoride condensate which causes severe burns. In this case wear neoprene gloves.

### Exposure Guidelines Exposure Limit Values

#### Hydrogen fluoride (anhydrous)

TLV	(ACGIH)	0.5 ppm	TWA as F
TLV	(ACGIH)	2 ppm	TLV-C as F
		Skin designation	
AEL *	(DUPONT)	0.5 ppm	15 minute TWA, Skin
OEL	(Argentina)	3 ppm	TLV-C as F

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : pellets  
Color : white, opaque  
Odor : slight  
Specific gravity : 1.5  
Water solubility : slightly soluble

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**SECTION 10. STABILITY AND REACTIVITY**

- Conditions to avoid : Processing temperature > 200 °C (> 392 °F)  
Avoid heating for prolonged periods above the recommended upper processing limit. Hazardous decomposition products may be produced when the recommended processing temperatures or times are exceeded.
- Incompatibility : Powdered metals Finely divided aluminium, Alkali metals, Alkaline earth metals
- Hazardous decomposition products : Hazardous decomposition products: Hydrogen fluoride, Carbonyl fluoride, Traces of phosphine, Hydrogen chloride, Fluorocarbons
- Hazardous reactions : During drying, cleaning and moulding, small amounts of hazardous gases and/or particulate matter may be released.  
Large molten masses may give off hazardous gases.

**SECTION 11. TOXICOLOGICAL INFORMATION**

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- Oral LD50 : 98 mg/kg , rat  
When tested as a fine powder:  
No toxicology information is available on the product as shipped.

Benzyltriphenylphosphonium chloride

- Inhalation 4 h LC50 : 0.15 mg/l , rat
- Skin irritation : Mild skin irritation, guinea pig
- Eye irritation : Severe eye irritation, rabbit
- Skin sensitization : Does not cause skin sensitisation., guinea pig  
Animal test did not cause sensitization by skin contact.
- Repeated dose toxicity : Inhalation  
rat
- Target Organs: Respiratory Tract  
Lung damage, Respiratory tract damage

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## Polyvinylidene fluoride/hexafluoropropene

Inhalation : The substance is a polymer and is not expected to produce toxic effects.

Skin irritation : No skin irritation, rabbit

Skin sensitization : Does not cause skin sensitisation., guinea pig

Repeated dose toxicity : Oral  
rat

No toxicologically significant effects were found.

Inhalation  
rat

No toxicologically significant effects were found.

Carcinogenicity : The substance is a polymer and is not expected to produce toxic effects.

Mutagenicity : The substance is a polymer and is not expected to produce toxic effects.

Reproductive toxicity : The substance is a polymer and is not expected to produce toxic effects.

Teratogenicity : The substance is a polymer and is not expected to produce toxic effects.

## Limestone

Dermal LD50 : > 2,000 mg/kg , rat  
Information given is based on data obtained from similar substances.

Inhalation 4 h LC50 : > 3 mg/l , rat  
Information given is based on data obtained from similar substances.

Skin irritation : No skin irritation, rabbit  
Information given is based on data obtained from similar substances.

Eye irritation : No eye irritation, rabbit  
Information given is based on data obtained from similar substances.

Skin sensitization : Does not cause skin sensitisation., mouse

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Information given is based on data obtained from similar substances.

Repeated dose toxicity

: Oral  
rat

No toxicologically significant effects were found., Information given is based on data obtained from similar substances.

Carcinogenicity

: Due to its physical properties, there is no potential for adverse effects.

Mutagenicity

: Evidence suggests this substance does not cause genetic damage in animals.  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  
Information given is based on data obtained from similar substances.

Reproductive toxicity

: Animal testing showed no reproductive toxicity.  
Information given is based on data obtained from similar substances.

Teratogenicity

: Animal testing showed no developmental toxicity.  
Information given is based on data obtained from similar substances.

Barium sulfate

Skin irritation

: human  
non-irritant

Skin sensitization

: Patch test on human volunteers did not demonstrate sensitisation properties., human

Repeated dose toxicity

: Inhalation  
animals (unspecified species)  
  
lung effects

Mutagenicity

: Evidence suggests this substance does not cause genetic damage in animals.  
Information given is based on data obtained from similar product.

Reproductive toxicity

: Animal testing showed no reproductive toxicity.

Teratogenicity

: Animal testing showed no developmental toxicity.



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### SECTION 12. ECOLOGICAL INFORMATION

#### Aquatic Toxicity

Polyvinylidene fluoride/hexafluoropropene

48 h EC50 : Daphnia magna (Water flea) > 100 mg/l

Limestone

96 h LC50 : Oncorhynchus mykiss (rainbow trout) > 100 mg/l OECD Test  
Guideline 203  
Information given is based on data obtained from similar substances.

72 h EC50 : Desmodesmus subspicatus (green algae) > 14 mg/l OECD Test  
Guideline 201  
Information given is based on data obtained from similar substances.

48 h EC50 : Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202  
Information given is based on data obtained from similar substances.

### SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : If recycling is not practicable, dispose of in compliance with local regulations.  
Can be landfilled or incinerated, when in compliance with local regulations.

Environmental Hazards : Offer rinsed packaging material to local recycling facilities.  
If recycling is not practicable, dispose of in compliance with local regulations.

### SECTION 14. TRANSPORT INFORMATION

IATA\_C UN number : 3464

Proper shipping name : Organophosphorus compound, toxic, solid, n.o.s.  
(Benzyltriphenylphosphonium chloride)

Class : 6.1

Packing group : III

Labelling No. : 6.1

IMDG UN number : 3464

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Proper shipping name : ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID,  
N.O.S. (Benzyltriphenylphosphonium chloride)  
Class : 6.1  
Packing group : III  
Labelling No. : 6.1

**SECTION 15. REGULATORY INFORMATION**

EINECS (EU) Status : On the inventory, or in compliance with the inventory  
TSCA (US) Status : In compliance with TSCA Inventory requirements for commercial purposes.  
AICS (AU) Status : On the inventory, or in compliance with the inventory  
DSL (CA) Status : On the inventory, or in compliance with the inventory  
ENCS (JP) Status : On the inventory, or in compliance with the inventory  
KECI (KR) Status : On the inventory, or in compliance with the inventory  
PICCS (PH) Status : On the inventory, or in compliance with the inventory  
IECSC (CN) Status : On the inventory, or in compliance with the inventory  
ISHL (JP) Status : On the inventory, or in compliance with the inventory  
NZIOC Status : On the inventory, or in compliance with the inventory

**SECTION 16. OTHER INFORMATION**

Restrictions for use : Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications and DuPont CAUTION Regarding Medical Applications.

Before use read DuPont's safety information.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination

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with any other materials or in any process, unless specified in the text.

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