

# MATERIAL SAFETY DATA SHEET

as per European directive EC/2001/58

## **Antec Virkon® powder**

Version 1

Revision: Dec. 23, 2009

Ref. 130000027570

This MSDS complies with French standards and regulations and may not be compliant with regulations in other countries.

## 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

### Product information

Name of product: Antec Virkon® powder

Use of the substance/  
preparation: Disinfectant, cleaning product

Company: SAFE  
Route de St Bris  
89290 Augy, France

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Emergency phone number: +352-3666-6543

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	EC No.	Classification	Concentration [%]
Pentapotassium-bis (peroximonosulphate)- bis(sulphate)	70693-62-8	274-778-7	C; R34 Xn; R22 R52	40 - 50
Sodium polyphosphate	68915-31-1	272-808-3	Xi; R36/37/38	20 - 25
Benzene sulphonic acid, C10-13 monoalkylated derivatives, sodium salts	90194-45-9	290-656-6	Xi; R36/38 Xn; R21	10 - 12
Malic acid	6915-15-7	230-022-8	Xn; R22 Xi; R37/38 -R41	7 - 10
Sulfamic acid	5329-14-6	226-218-8	Xi; R36/38 R52 -R53	4 - 6
Dipotassium peroxodisulphate	7727-21-1	231-781-8	O; R 8 Xn; R22 Xi; R36/37/38 R42/43	< 1.49

Please refer to article 16 for the complete description of R phrases mentioned

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## 3. HAZARDS IDENTIFICATION

Skin irritant.  
Risk of serious damage to the eyes.  
Toxicity for aquatic life.

## 4. FIRST AID MEASURES

General recommendations:	Never attempt to make an unconscious person swallow anything. If a victim is on his back and vomits, turn him on the side.
Inhalation:	Remove the victim from the exposure site and place him on his back. If the victim is not breathing, artificial respiration and/or oxygen may be necessary. Consult a physician
Contact with skin:	Wash immediately and abundantly with water. Consult a physician.
Contact with eyes:	Remove contact lenses. Immediately wash with large volumes of water. Call a physician immediately.
Ingestion:	DO NOT induce vomiting. If the victim is conscious, have him drink large quantities of water. Call a physician immediately.

## 5. FIRE-FIGHTING MEASURES

Suitable means of extinction:	Foam, dry powder, carbon dioxide (CO <sub>2</sub> ),
Specific dangers while fire fighting:	Prevent contaminated extinction water from entering drains or watercourses.
Special protection equipment for the fire fighting team:	Wear a self-contained breathing apparatus and protective clothing.
Additional information:	Use fire fighting methods suited to local conditions and the neighbouring environment.

## 6. ACCIDENTAL RELEASE MEASURES

Individual precautions:	Remove personnel to a safe place. Use personal protection equipment.
Precautions to protect the environment:	Try to prevent entry of the dispersed material in drains or watercourses.
Cleaning methods:	Sweep and use a dustpan to place the material in suitable recipients for elimination. Avoid generating dust. After cleaning, rinse remaining traces with water.

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Additional recommendations: Eliminate the product as stipulated by existing local regulations.

## 7. HANDLING AND STORAGE

### Handling

Recommendations for handling without risk:

Avoid creating dust in closed spaces. Personal protection equipment, see section 8. Avoid contact with the skin and eyes.

### Storage

Requirements for storage areas and containers:

Protect against contamination. Store in the original container. Store in a cool dry place.

Precautions for storage with other products:

Store far from combustible materials

Other data:

Stable in recommended storage conditions.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### Technical measures

When the bulk product is handled, ensure ventilation by negative pressure at the work station.

### Personal protection equipment

Respiratory protection:

When workers are faced with concentrations higher than exposure limits, they must wear suitable certified masks.

Protection of the hands:

Rubber gloves.

Protection of the eyes:

Wrap-around safety goggles.

Protection of the skin and body:

Depending on needs, wear an apron and/or boots. Remove and clean contaminated clothing before reutilisation.

Hygiene measures:

Wash hands before breaks and immediately after handling the product. Clean equipment, premises and work clothing at regular intervals.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:

Powder

Colour:

Pink

Odour:

Pleasant, sweet

pH:

2.4 - 2.7

Flash point:

No flash point

Relative density:

1.07

Solubility in water

65 g/L at 20 °C

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## 10. STABILITY AND REACTIVITY

Conditions to avoid:	Exposure to humidity
Materials to avoid:	Strong bases, combustible materials
Hazardous breakdown products:	Sulphur dioxide, chlorine

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity:	LD50, rats: 4,123 mg/kg (data on the product itself)
Pentapotassium-bis (peroximonosulphate)-bis(sulphate):	LD50, rats: 200 - 2,000 mg/kg
Dipotassium peroxodisulphate:	LD50, rats: 1, 100 mg/kg
Acute toxicity by inhalation:	LC50, 4 h, rats: 3.7 mg/L. Method: aerosol
Acute toxicity by inhalation: Pentapotassium-bis (peroximonosulphate)-bis(sulphate):	LC50, 4 h, rats: > 5 mg/L
Acute toxicity by skin penetration:	LD50, rabbits: 2,200 mg/kg
Acute toxicity by skin penetration Pentapotassium-bis (peroximonosulphate)-bis(sulphate):	> 2,000 mg/kg
Benzene sulphonic acid, C10-13 monoalkylated derivatives, sodium salts:	LD50, male rats: 840 mg/kg LD50, male mice: 1,250 mg/kg
Potassium peroxodisulphate:	LD50, rabbits: > 10,000 mg/kg
Skin irritation:	Moderate skin irritation
Skin irritation Benzene sulphonic acid, C10-13 monoalkylated derivatives, sodium salts:	Irritant
Irritation of the eyes:	Risk of serious damage to the eyes.
Irritation of the eyes Benzene sulphonic acid, C10-13 monoalkylated derivatives, sodium salts:	Method: OECD Guideline 405: Ocular irritation
Sensitisation:	Buehler test on guinea pigs. Result: tests on animals revealed no sensitisation by contact with the skin. Maximisation test in guinea pigs. Result: tests on animals revealed no sensitisation by contact with the skin.
Sensitisation Benzene sulphonic acid, C10-13 monoalkylated derivatives, sodium salts:	Maximisation test in guinea pigs. Result: no sensitising effect in laboratory animals. Method: OECD Guideline 406
Experience in humans:	Successive exposures may adversely affect human health as follows: Inhalation <i>Nasal mucus membranes</i> : irritation

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## 12. ECOLOGICAL INFORMATION

### Information for elimination (persistence and degradability)

Biodegradability: It is expected that the product is biodegradable.

Toxicity for fish:

Pentapotassium-bis  
(peroximonosulphate)-bis(sulphate): LC50, 96 h, *Oncorhynchus mykiss* (rainbow trout): 53 mg/L

Benzene sulphonic acid, C10-13  
monoalkylated derivatives, sodium  
salts: LC50, 96 h, zebra fish: 5.1 mg/L

Toxicity for aquatic life:

Pentapotassium-bis  
(peroximonosulphate)-bis(sulphate): EC50, 48 h, daphnia: 3.5 mg/L

## 13. DISPOSAL CONSIDERATIONS

Product: Eliminate as special waste according to local and national regulations.  
Prevent the product from entering drains, watercourses or the soil.

Contaminated packages: If recycling is not possible, eliminate according to local regulations.

## 14. TRANSPORT INFORMATION

Other Information: Product not hazardous for transport from a regulatory standpoint.

## 15. REGULATORY INFORMATION

### Labelling according to EC Directives

Symbol(s): Xi Irritant

Risk phrases:

R38: Irritant for the skin.

R41: Risk of serious damage to the eyes.

R52: Harmful to aquatic organisms.

S phrases

S 2: Keep out of the reach of children

S22: Do not breathe dust.

S24/25: Avoid contact with the skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and equipment to protect the face and eyes.

Sensitising components:

Contains:

Potassium peroxodisulphate

May cause an allergic reaction.

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## 16. OTHER INFORMATION

### R phrases mentioned in article 2

R 8	Contact with combustible material may cause fire.
R21	Harmful in contact with skin.
R22	Harmful if swallowed.
R34	Causes burns.
R36/37/38	Irritant for the eyes, respiratory tract and the skin.
R36/38	Irritant for the eyes and the skin.
R37/38	Irritant for the respiratory tract and the skin.
R41	Risk of serious damage to the eyes.
R42/43	May cause sensitization by inhalation and by skin contact.
R52	Harmful to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.

The information in this safety data sheet has been established on the basis of existing knowledge at the time of publication of this document. This information is given only as a general guide for handling, manufacturing, storage, transport, distribution, availability, utilisation and elimination in correct conditions of safety, and shall not be interpreted as a guarantee or considered to be quality specifications. In addition, this information concerns only the product in question here and without specific indications to the contrary, may not be applicable if the said product is mixed with other substances or those used in the manufacturing process.