

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : ROTARY PUMP BLADE MATERIAL - CX2**

### 1. Product and Company Identification

Product name: CX2 - Rotary pump blade material  
Synonyms: Vectra A130 Natural  
Item Numbers: A652-01-130, A371-01-132, A134-01-811, A652-01-131, A652-01-137

#### European Contact Details

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Chemtrec: 1-800-424-9300

### 2. Composition/Information on Ingredients

Ingredient	% Weight	CAS No	Hazard class*	Risk phrase*
Base resin in a wholly aromatic liquid crystal polyester	70	70679-92-4	Not applicable	Not applicable
Glass Fibre	30	Not assigned	Not applicable	Not applicable

\*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive (67/548/EEC, as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

### 3. Hazards Identification

#### EMERGENCY OVERVIEW

This material when properly handled according to good working and hygienic practices is not dangerous to human health and the environment. Carbon monoxide and carbon dioxide are given off on combustion.

For short and long term exposure effects see Section 11 Toxicological data.

Eye Effects: Not applicable to finished components. Dust/particles or thermal decomposition vapours may cause mechanical irritation.

Skin Effects: Non irritant (data for base resin). Dust/particles may cause mechanical irritation.

Ingestion/Oral Effects: Not applicable to finished components (pump blades). Base resin has low toxicity.

Inhalation Effects: Hazardous and irritating vapours generated on overheating.

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MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Gases/vapours evolved during overheating may affect people with chronic diseases of the respiratory system.

NFPA Hazard codes		HMIS Hazard codes		Rating System
Health	1	Health	0	0 = No Hazard
Flammability	1	Flammability	1	1 = Slight Hazard
Instability	0	Reactivity	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

### 4. First Aid Measures

- Eyes:** In case of contact with the eyes, rinse with plenty of water and seek medical advice if discomfort persists.
- Skin:** Clean area of skin affected by molten product with plenty of cold water, wash with soap and water. Seek medical advice.
- Ingestion/Oral:** If swallowed, give the patient plenty of water to drink, and seek medical advice. DO NOT give anything to drink to an unconscious person.
- Inhalation:** If inhaled, provide fresh air. If breathing problems occur, a qualified individual should administer oxygen or artificial respiration as indicated. Seek immediate medical advice.
- Other Information:** See Section 8 Exposure controls/personal protection.

### 5. Fire Fighting Measures

- Extinguishing Media:** Water, dry powder, carbon dioxide, foam.
- Fire and Explosion Hazard:** The material does not burn unless a flame is applied. It does not burn continuously without the flame unless the oxygen content is >37%. There is a slight dust explosion hazard. Hazardous decomposition products : carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and phenol.
- Special Protective Equipment for Fire Fighters:** Fire fighters should wear a self-contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode and full turnout gear. Wear skin protection adequate to protect from thermal decomposition products.

For Flammability Properties - see Section 9

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#### 6. Accidental Release Measures

May present a slip hazard. Put on the necessary protective clothing as specified in Section 8. Gather together or sweep up the spill and place in suitable containers for recovery or disposal.

#### 7. Handling and Storage

Handling: Take precautionary measures against dust explosions.  
Avoid prolonged heating above 350 °C/662 °F.

Storage: Store in clean, dry conditions. Store in sealed containers to maintain dryness of the material.

#### 8. Exposure Controls/Personal Protection

##### Exposure Limits:

Ingredient	ACGIH - TLV -	OSHA - PEL	Occupational Exposure Limits EH40 (UK)
Base resin with glass fibre (30%)	5 mg/m <sup>3</sup> - 8 H TWA (inhalable dust) 1 f/cc - 8 H TWA <sup>(1)</sup>	15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)	<sup>(2)</sup> Total Inhalable dust - TWA - 8h - 10mg/m <sup>3</sup> <sup>(2)</sup> Respirable dust - TWA - 8h - 5mg/m <sup>3</sup>

(1) Fibres longer than 5 µm with a diameter less than 3 µm - aspect ratio greater than 5:1.

(2) Recommended lower limits.

##### Personal Protection:

Engineering Measures: Provide local exhaust ventilation when processing material, or when dust/particles may be present.

Respiratory Protection: Wear dust mask when processing material, or when dust/particles may be present.

Hand/Skin Protection: Wear protective gloves when processing material, or when dust/particles may be present.

Eye/Face Protection: Wear protective goggles/safety glasses/face shield when processing material, or when dust/particles may be present.

Hygiene Measures: Observe normal standards of industrial hygiene. Do not eat, drink or smoke when handling material. Wash hands before eating, drinking or smoking.

Other/General Protection: Wear suitable protective clothing with long sleeves and full-length leg protection whenever there is the possibility of contact with hot materials.

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### 9. Physical and Chemical Properties

Appearance and Odour	Solid beige moulding. Slight characteristic odour.	Boiling point	No data available	°C/°F
pH (as supplied)	No data available	Melting Point	280 / 536	°C/°F
Solubility in Water	Insoluble	Auto Ignition	540 / 1004	°C/°F
Volatile Content by Volume	< 1.0 %	Flash Point	> 93 / 200	°C/°F
Specific Gravity	1.37 - 2.1			
Vapour Pressure (mbar)	< 1.333 x 10 <sup>-3</sup>	Vapour Pressure (Torr)	< 0.001	

### 10. Stability and Reactivity

Stability:	There is a slight possibility of a dust explosion.
Material/Conditions to Avoid:	Avoid contact with strong alkali solutions which will soften the material. Avoid prolonged exposure to temperatures above 340 °C (644 °F). Avoid exposure to flames with temperatures above 350 °C (662 °F).
Hazardous Decomposition:	Carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ) phenol, phenyl esters, acetic acid and aromatic compounds.
Hazardous Polymerisation:	Will not occur.

### 11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 3 Hazards Identification.

#### Animal data:

LD50 value:	Oral: > 5 g/kg (rat) Dermal: >2 g/kg (rat) - data for base resin
LC50 value:	No data available.

#### Carcinogenicity:

Continuous glass filaments generally have a diameter of 6 to 16 µm. Fibres with this diameter are incapable of penetrating the lower respiratory tract and are thus not considered carcinogenic to humans. As these fibres are considered to be non-respirable, few animal studies or epidemiological studies have been conducted.

### 12. Ecological Information

No information available.

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#### 13. Disposal Considerations

Where possible, recycle the product and packaging. Dispose of the product and any packaging in accordance with all local, federal and state regulations.

#### 14. Transport Information

This product is not classified as dangerous under transport regulations.

PARAMETER	EUROPEAN	CANADIAN TDG	UNITED STATES DOT
Proper Shipping Name	Not applicable	Not applicable	Not applicable
Hazard Class	Not applicable	Not applicable	Not applicable
Identification Number	Not applicable	Not applicable	Not applicable
Shipping Label	Not applicable	Not applicable	Not applicable

#### 15. Regulatory Information

##### European Regulatory Information

This product has been classified in accordance with the Dangerous Substances Directive (67/548/EEC, as amended) and the Preparations Directive (88/379/EEC, as amended), implemented in the UK as the Chemical (Hazard Information and Packing) Regulations 1994 (CHIP, as amended).

Classified as dangerous to supply : No

Risk Phrases : Not applicable

Safety Phrases : Not applicable

Symbols : None

##### United States Regulatory Information

Product is a manufactured article not subject to TSCA listing.

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product constitutes an "article" and, as such is exempt from SARA 313 reporting requirements (40 CFR Part 372.38, Paragraph B).

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

##### Canadian Regulatory Information

WHMIS Classification: Product is a manufactured article not subject to WHMIS regulations.

Product is a manufactured item not subject to DSL listing.

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### 16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and the EU Safety Data Sheet Directive 91/155/EEC.

Sources of information for this data sheet:

- Ticona "VECTRA A130D-2, VD3005, BLACK" Material Safety Data Sheet. MSDS Number: V2000. Revision Number: 3. Version date: 12/26/2006.

### Glossary:

**ACGIH** - American Conference of Governmental Industrial Hygienists; **ANSI** - American National Standards Institute; **Canadian TDG** - Canadian Transportation of Dangerous Goods; **CAS** - Chemical Abstracts Service; **Chemtrec** - Chemical Transportation Emergency Center (US); **CHIP** - Chemical (Hazard Information and Packing); **DSL** - Domestic Substances List; **EH40 (UK)** - HSE Guidance Note EH40 Occupational exposure limits; **HMIS** - Hazardous Material Information Service; **LC** - Lethal Concentration; **LD** - Lethal Dose; **NFPA** - National Fire Protection Association; **OSHA** - Occupational Safety and Health Administration, US department of Labour; **PEL** - Permissible exposure limit; **SARA (Title III)** - Superfund Amendments and Reauthorization Act; **SARA 313** - Superfund Amendments and Reauthorization Act, Section 313; **SCBA** - Self-Contained Breathing Apparatus; **TLV** - threshold limit value; **TSCA** - Toxic Substances Control Act Public Law 94-469; **TWA** - Time-Weighted Average; **US DOT** - US Department of Transportation; **WHMIS** - Workplace Hazardous Materials Information System.

### Revisions:

Nov 2007 - Data Sheet updated to reflect the latest supplier safety information.

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