

Product name	VECTRA® E488ID-2 BLACK		TNA/EN
MSDS number	8721008322	Revision Date	Jun.28.2012
Revision Number	0.01	Issuing date	Jun.29.2012

1. Identification of the substance/preparation and of the company/undertaking

Product name VECTRA® E488ID-2 BLACK
Material Number: 21008322
MSDS ID VE2020

Manufacturer, importer, supplier

TICONA
8040 Dixie Hwy.
Florence, KY 41042
United States
<http://www.ticona.com>

Transportation emergency phone numbers:
In USA, call 800-424-9300
Outside USA, call 703-527-3887, collect calls accepted

Product Information
1-800-833-4882
prodinfo@ticona.com

Synonyms:
Liquid crystal polymer / LCP

End Use:
Plastic processing industry.

2. Hazards identification

Emergency Overview

Dust from this product can form an explosive organic dust cloud.
Spilled pellets may present a slipping hazard.
The molten product can cause serious burns.

Potential health effects

Immediate effects

Skin	Polymer particles may cause mechanical irritation. The molten product can cause serious burns.
Eyes	Resin particles, like other inert materials, are mechanically irritating to eyes

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Inhalation Dust irritating to respiratory tract. Overheating in processing may generate hazardous, irritating vapours.

Ingestion May be harmful if swallowed.

Medical conditions which may be aggravated by exposure: No specific information available on the product. Off-gases, which may be released if overheated, may affect those with chronic diseases of the respiratory system.

3. Composition/information on ingredients

Chemical characterization Liquid crystal polymers / LCP, glass fiber reinforced

Components	CAS-No	Percent %
Carbon black	1333-86-4	1 - 5
Glass oxide; Fiberglass continuous filament	65997-17-3	5 - 60

This product may contain proprietary ingredients. This is a polymeric material. Any hazardous constituents are wetted by the polymer system, and therefore are unlikely to present exposure under normal conditions of processing and handling.

4. First aid measures

Skin
Cool skin rapidly with cold water after contact with molten polymer. Immediate medical attention is required. Do not peel solidified product off the skin.

Eyes
Immediately flush eye(s) with plenty of water. Call a physician if irritation persists.

Inhalation
Move to fresh air in case of accidental inhalation of vapors. Get medical attention immediately if symptoms occur.

Ingestion
If swallowed, do not induce vomiting - seek medical advice.

Notes to physician
This product is essentially inert and nontoxic. However, if it is heated at too high a temperature or if it is burned, gases may be released. Patients who have been exposed to off-gases may need to have their arterial blood gases and carboxyhemoglobin levels checked. If the carboxyhemoglobin levels are normal, asphyxia (carbon dioxide replacing oxygen) is a possibility. As with any fire, irritant gases may have formed. If patients may have inhaled high concentrations of irritating fumes, they should be monitored for delayed onset pulmonary edema

5. Fire-fighting measures

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5. Fire-fighting measures

Suitable extinguishing media

Water, Foam, Dry powder

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

Under conditions giving incomplete combustion, hazardous gases produced may consist of
carbon monoxide
carbon dioxide (CO₂)
nitrogen oxides (NO_x)

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Environmental precautions

Dike and collect water used to fight fire..

Other Information

Potential dust explosion hazard. Keep people away from and upwind of fire.

6. Accidental release measures

Personal precautions

Do not breathe dust. Avoid dust formation. Use adequate ventilation.

Environmental precautions

No special precautions required.

Methods for cleaning up

Use mechanical handling equipment.

7. Handling and storage

Handling

Advice on safe handling

Do not handle hot or molten material without appropriate protective equipment. Maintain good housekeeping in work areas. Do not exceed recommended process temperatures to minimize release of decomposition products.

Protection - fire and explosion

Do not smoke in areas where polymer dust is present. Appropriate measures should be taken to control the generation and accumulation of dust during conveying and processing operations.

Storage

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Material storage
Store in a cool dry place. Maintain dryness of resin.

Incompatible products
strong bases

8. Exposure controls/personal protection

OSHA Exposure Limits

Components	TWA
Carbon black	3.5 mg/m ³

ACGIH Exposure Limits

Components	TWA
Carbon black	3.5 mg/m ³
Glass oxide; Fiberglass continuous filament	5 mg/m ³ 1 fibers / cm ³

Mexico National Exposure Limits

Components	LMPE - PPT
Carbon black	3.5 mg/m ³
Glass oxide; Fiberglass continuous filament	10 mg/m ³

Components	STEL
Carbon black	7 mg/m ³

Components	Mexican Carcinogen Category
Carbon black	A4

Exposure controls

Engineering measures

General: May not be adequate as the sole means to control employee exposure.
Local Exhaust: Recommended when appropriate to control employee exposure to dust or process vapors

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Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment

Skin protection:

When thermal or melt processing, wear long pants, long sleeves, well insulated gloves, and face shield when there is a chance of contact.

Eye/face protection:

Safety goggles. safety glasses with side-shields.

Comments:

Operations involving grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards

9. Physical and chemical properties

Appearance

Form	pellets
Odor	slight , specific .
Molecular Weight	> 20.000 (base resin)
Flash point	> 93°C(200°F)
Ignition temperature	> 540°C (1004°F)
Method	ASTM D 1929
Water solubility	insoluble

10. Stability and reactivity

Reactivity

Stable under normal conditions.

Conditions to avoid

Flame. Avoid prolonged heating at or above the recommended processing temperature.

Incompatible Materials

strong bases.

Hazardous Combustion or Decomposition Products:

Thermal decomposition products may include oxides of nitrogen and carbon.

Possibility of hazardous reactions

Incompatible with bases.

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11. Toxicological information

No data is available on the product itself

12. Ecological information

Ecotoxicity:

The effects of resin pellets on the wildlife that may ingest them is not well understood. In the case of seabirds, some marine biologists believe that the fowl may not be able to pass plastic pellets through their digestive tracts. Thus, large quantities of ingested pellets may cause intestinal blockage, false feelings of satiation or reduction in absorption of nutrients, causing malnutrition and starvation. The goal of SPI's Operation Clean Sweep is zero loss of pellets into the environment.

Environmental Fate/Information:

This material is considered to be non-biodegradable.

13. Disposal considerations

Disposal considerations

Recycling is encouraged. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

This product as shipped is not a RCRA hazardous waste under present EPA regulations

14. Transport information

US Department of Transportation Not regulated

TDG Not regulated

Mexico Transport Information Not regulated

ICAO/IATA Not restricted

IMDG Not regulated

15. Regulatory information

U.S. FEDERAL REGULATIONS

Material Safety Data Sheet



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TSCA Inventory

This product complies with the U.S. Toxic Substances Control Act (TSCA).

SARA 313 Chemicals

Contains no substances at or above the reporting threshold under Section 313.

CANADIAN REGULATIONS

WHMIS Classification:

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL:

Fiberglass (65997-17-3)
Carbon Black (1333-86-4)

16. Other information

NFPA:	Health: 1	Flammability: 1	Instability: 0
HMIS:	Health: 0	Flammability: 1	Physical Hazard: 0

Prepared By

Product Stewardship Department
Ticona

Changes against the previous version are marked by ***

This product is not intended for use in medical or dental implants.

Refer to the appropriate Ticona bulletins for specific processing guidance and good manufacturing practices (purging, processing parameters, shutdown, etc.).

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Ticona makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

Material Safety Data Sheet



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Abbreviation and Acronym:

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG = International Maritime Code for Dangerous Goods

IATA = International Air Transport Association

ICAO = International Civil Aviation Organization

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

EINECS = European Inventory of Existing Commercial Chemical Substances

CAS = Chemical Abstracts Service (division of the American Chemical Society)

CLP = Classification, Labelling and Packaging