

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

1 Identification

- **Product identifier:** 60-AFC-8000
- **Trade name:** Quantum^{FC} Epoxy Fairing Compound Blue Activator
- **Article number:**
- **Application of the substance / the mixture** Epoxy curing agent
- **Details of the supplier of the safety data sheet Manufacturer/ Supplier:**
Company Name: Engineered Marine Coatings, Inc.

Headquarters:
Box 921
Isle of Palms, SC 29451
USA

Manufacturing Site:
1611 Hults Drive
Eaton Rapids, MI 48827
USA

info@emcllc.net

- **Information department:** Product safety department
- **Emergency telephone number:**

During normal opening times: +1 855-54GENIUS
CHEMTREC 24-hour Emergency: +1 (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 1)

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Methyleneoxide, polymer with benzenamine, hydrogenated
Tofa, reaction products with TEPA
3,6,9-triazaundecamethylenediamine
4,4'-methylenebis(cyclohexylamine)*

· **Hazard statements**

*Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.*

· **Precautionary statements**

*Do not breathe dusts or mists.
Wear protective gloves.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 3
Fire = 1
Reactivity = 0*

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 2)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	4	Health = *4
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol	25-50%
CAS: 135108-88-2	Methyleneoxide, polymer with benzenamine, hydrogenated	20-<25%
CAS: 68953-36-6	Tofa, reaction products with TEPA	10 - 20%
CAS: 112-57-2 EINECS: 203-986-2	3,6,9-triazaundecamethylenediamine	2.5-<5%
CAS: 1761-71-3 EINECS: 217-168-8	4,4'-methylenebis(cyclohexylamine)	1-<5%
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide	0.1-1%
CAS: 112-24-3 EINECS: 203-950-6	3,6-diazaoctanethylenediamin	0.1-<1%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 3)

- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

US
(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 4)

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

100-51-6 Benzyl alcohol

WEEL Long-term value: 10 ppm

112-57-2 3,6,9-triazaundecamethylenediamine

WEEL Long-term value: 5 mg/m³
Skin; DSEN

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

US

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 5)

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Thixotropic Paste
Color:	Light blue
· Odor:	Amine-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	197 °C (387 °F)
· Flash point:	170 °C (338 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	435 °C (815 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	1.3 Vol %
Upper:	13.0 Vol %
· Vapor pressure at 20 °C (68 °F):	0.1 hPa
· Density at 20 °C (68 °F):	1.00457 g/cm ³ (8.383 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	27.4 %
VOC content:	27.4 %
	275.0 g/l / 2.29 lb/gl
Solids content:	18.2 %
· Other information	No further relevant information available.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 6)

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

100-51-6 Benzyl alcohol

Oral	LD50	1230 mg/kg (rat)
------	------	------------------

Dermal	LD50	2000 mg/kg (rabbit)
--------	------	---------------------

112-57-2 3,6,9-triazaundecamethylenediamine

Dermal	LD50	660 mg/kg (rabbit)
--------	------	--------------------

- **Primary irritant effect:**

- **on the skin:** Strong caustic effect on skin and mucous membranes.

- **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

13463-67-7	titanium dioxide	2B
------------	------------------	----

7631-86-9	silicon dioxide, chemically prepared	3
-----------	--------------------------------------	---

69012-64-2	Silica-Amorphous Silica fume	3
------------	------------------------------	---

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

US

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 7)

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

100-51-6 Benzyl alcohol

96 hr LC50	460 mg/l (Fathead minnow)
	10 mg/l (Fish)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|-------------------------------------|---------------|
| · UN-Number | |
| · DOT, ADN, IMDG, IATA | not regulated |
| · UN proper shipping name | |
| · DOT, ADN, IMDG, IATA | not regulated |
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | not regulated |

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 8)

- | | |
|--|-----------------|
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

13463-67-7 titanium dioxide

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

13463-67-7 titanium dioxide

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7 titanium dioxide

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

GHS07

GHS08

- **Signal word** Danger

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/13/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 9)

· **Hazard-determining components of labeling:**

Methyleneoxide, polymer with benzenamine, hydrogenated
Tofa, reaction products with TEPA
3,6,9-triazaundecamethylenediamine
4,4'-methylenebis(cyclohexylamine)

· **Hazard statements**

Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

Do not breathe dusts or mists.
Wear protective gloves.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 10/13/2015 / 3

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/13/2015

Reviewed on 10/15/2015

Trade name: QuantumFC Epoxy Fairing Compound Blue Activator

(Contd. of page 10)

*VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A**Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Carc. 2: Carcinogenicity, Hazard Category 2**STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2**Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

US