

Material Safety Data Sheet
NVA392 ENVIROLINE 376F-60 GREEN PART A
Version Number 1 Revision Date 06/24/14
1. Product and company identification

Hazardous according to criteria of Australian WHS Regulations.
Classified as a Dangerous Good for transport according to the latest ADG code.

1.1. Product identifier ENVIROLINE 376F-60 GREEN PART A

Product Code NVA392

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Refer Technical Data Sheet.
For professional use only.

This product is intended for use in the Marine and Protective Coatings markets.

Application Method Refer Technical Data Sheet.
Apply by brush and roller for small areas.
Airless spray for large areas.

1.3. Details of the supplier of the safety data sheet

Manufacturer Akzo Nobel Pty Ltd.
8 Kellaway Place
Wetherill Park
New South Wales
Australia, 2164

Telephone No. (02) 9616 6900

Fax No. (02) 9609 3910

1.4. Emergency telephone number 1800 680 071

For Poisons Advice telephone 131 126 For Advice to Doctors & Hospitals only

2. Hazard identification of the product

2.1. Classification of the substance or mixture

| | |
|------------------------|--|
| Skin Irrit. 2;H315 | Causes skin irritation. |
| Eye Irrit. 2;H319 | Causes serious eye irritation. |
| Skin Sens. 1;H317 | May cause an allergic skin reaction. |
| STOT RE 2;H373 | May cause damage to organs through prolonged or repeated exposure. |
| Aquatic Chronic 2;H411 | Toxic to aquatic life with long lasting effects. |

2.2. Label elements

Using the Toxicity Data listed in section 11 & 12 the product is labelled as follows.



Warning

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Poison Schedule: 5

Precautionary Phrases (P) listed below:

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P260 Do not breathe mist / vapours / spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with soap and water.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

P314 Get Medical advice / attention if you feel unwell.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337 If eye irritation persists:

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use alcohol resistant foam, CO2, powder, water spray for extinction. Do not use water jet.

P391 Collect spillage.

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

2.3. Other hazards

This product contains no PBT/vPvB chemicals.

3. Composition/information on ingredients

This product contains the following substances that are classified hazardous according to the Australian WHS Hazardous Substances regulations:

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|--|----------|--|--------|
| Epoxy Resin CAS Number: 0025068-38-6 | 25-50 | Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411 | [1] |
| Crystalline Silica - Quartz CAS Number: 0014808-60-7 | 10-25 | Acute Tox. 4;H332 STOT RE 2;H373 | [1][2] |
| Bisphenol F epoxy resin (av.mol.wt.<700) CAS Number: 0028064-14-4 | 10-25 | Skin Irrit. 2;H315 Eye Irrit. 2;H319 Skin Sens. 1;H317 Aquatic Chronic 2;H411 | [1] |
| | | | |

| | | | |
|--|--------|---|--------|
| Oxirane, 2,2'-[1,4-butanediyl]bis (oxymethylene)]bis- CAS Number: 0002425-79-8 | 2.5-10 | Acute Tox. 4;H332 Acute Tox. 4;H312 Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 | [1] |
| Nonylphenol CAS Number: 0025154-52-3 | 1-2.5 | Repr. 2;H361fd Acute Tox. 4;H302 Skin Corr. 1B;H314 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 | [1] |
| 1-Methoxy-2-propanol CAS Number: 0000107-98-2 | 1-2.5 | Flam. Liq. 3;H226 STOT SE 3;H336 | [1][2] |

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the Hazard (H) phrases are shown in Section 16.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence do not require reporting in this section.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognised skin cleanser. Do NOT use solvents or thinners.

Eye Contact

Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart and seek medical attention.

Ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.

Do not use - water jet.

Note; Fire will produce dense black smoke. Decomposition products may be hazardous to health. Avoid

exposure and use breathing apparatus as appropriate.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area to avoid breathing vapours. Take the personal protective measures listed in Section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to relevant State and Federal regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the relevant Environment Protection Agency.

Empty containers may contain product residues, including flammable or explosive vapours. Do not cut, puncture or weld on or near containers. All label warnings must be observed until the containers have been cleaned or reconditioned.

6.2. Environmental precautions

Do not allow spills to enter drains or watercourses.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapours. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

7. Handling and storage

7.1. Precautions for safe handling

Handling

This product contains solvents. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Areas of storage, preparation and application should be ventilated to prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.

In Storage

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

Avoid skin and eye contact. Avoid inhalation of vapours and spray mists. Observe label precautions. Use personal protection as shown in section 8.

Smoking, eating and drinking should be prohibited in all preparation and application areas.

Never use pressure to empty a container; containers are not pressure vessels.

There are no exposure scenarios, see details in section 1.

7.3. Specific end use(s)

Store in a well ventilated, dry place away from sources of heat and direct sunlight.

Store on concrete or other impervious floor, preferably with bunding to contain any spillage. Do not stack more than 3 pallets high.

Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in the original container or one of the same material.

Prevent unauthorised access.

8. Exposure controls and personal protection

8.1. Control parameters

From Australia's Hazardous Substance Information System (HSIS)

For detailed information refer to the HSIS web site (<http://hsis.ascc.gov.au>).

| Material | Short term (15m ave STEL) | | Long term (8hr TWA) | | Comments |
|-----------------------------|---------------------------|-------------------|---------------------|-------|----------|
| | ppm | mg/m ³ | ppm | mg/M3 | |
| 1-Methoxy-2-propanol | 150 | 553 | 100 | 369 | |
| Crystalline Silica - Quartz | - | - | - | 0.2 | |
| Mica | - | - | - | 2.5 | |

Chemicals classified as hazardous according to WHS regulations may have a notification alongside the exposure standard. If such a notification is necessary, it will appear in the far right hand column. The legend is as follows:

(P) Peak exposure limit

(R) Suppliers Recommended Limit

(Sk) There is a risk of absorption through unbroken skin

(Sen) Sensitiser

(Cat1) Category 1 - established human carcinogen

(Cat2) Category 2 - probable human carcinogen

(Cat3) Category 3 - substances suspected of having carcinogenic potential.

There is no biological limit allocated.

DNEL/PNEC values

No Data Available

8.2. Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

Eye Protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids. Eyewear should comply with AS/NZS1337.

Wear a full face shield if mixing or pouring operations pose a risk of splashes.

An eye wash station is suggested as a good work place practice.

Skin Protection

Gloves of an appropriate material should be worn during mixing and application. Nitrile or PVC gloves are generally recommended for products containing solvents.

Other

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

Respiratory Protection

In Liquid, Paste or Atomised form (e.g. Spray Application), workers must wear respirators with a filter Type A (Organic vapour) approved in accordance with AS/NZS 1716.

Provision of other controls such as exhaust ventilation should be considered if practical.

If applying large volumes (>100L) and If there is not sufficient ventilation or if there is a confined space, an Air Fed Respirator is strongly recommended.

In Solid or Dust form (e.g. Sanding Cured product) workers must wear a Class P1 Particulate filter mask in accordance with AS/NZS1716.

Thermal hazards

No Data Available

9. Physical and chemical properties

| | |
|--|---|
| Colour | Green Liquid |
| Odour | Smell of Solvent |
| Odour threshold | Not Measured |
| pH | N/A |
| Melting point / freezing point (°C) | Not Measured |
| Initial boiling point and boiling range (°C) | 117 |
| Flash Point (deg C closed cup) | 66 |
| Evaporation rate (Ether = 1) | Not Measured |
| Flammability (solid, gas) | Not Applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: 1.6 (1-Methoxy-2-propanol) Upper Explosive Limit: No data available |
| Vapour pressure (Pa) | Not Measured |
| Vapour Density | Heavier than air. |
| Specific Gravity | 1.53 |
| Solubility in Water | Immiscible |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Autoignition temperature | Not Measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt) | N/A |

9.2. Other information

No further information

10. Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Chemical stability

Stable under recommended storage and handling conditions (see section 7).

Conditions to avoid

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid possible exothermic reactions.

Incompatible materials

Strong acids, bases, oxidising agents.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

Hazardous reactions

None.

10.3. Possibility of hazardous reactions

May react exothermically with: oxidising agents, strong alkalis, strong acids.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

10.6. Hazardous decomposition products

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

11. Toxicological information

Acute toxicity

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible irreversible damage.

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitiser. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitisation, possibly with cross-sensitisation to other epoxies.

The preparation has been assessed using the Acute Toxicity Data listed below, and classified for toxicological hazards accordingly. See section 2 for details.

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapour LD50, mg/L/4hr | Inhalation Dust/Mist LD50, mg/L/4hr |
|-----------------------------------|------------------|-------------------|----------------------------------|-------------------------------------|
| 1-Methoxy-2-propanol - (107-98-2) | 5,000.00, Rat | 13,000.00, Rabbit | Not Applicable | Not Applicable |
| Bisphenol F epoxy resin | 2,000.00, Rat | Not Applicable | Not Applicable | Not Applicable |

| | | | | |
|--|----------------|------------------|----------------|----------------|
| (av.mol.wt.<700) - (28064-14-4) | | | | |
| Crystalline Silica - Quartz - (14808-60-7) | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Epoxy Resin - (25068-38-6) | 2,000.00, Rat | 2,000.00, Rabbit | Not Applicable | Not Applicable |
| Nonylphenol - (25154-52-3) | 580.00, Rat | 2,000.00, Rabbit | Not Applicable | Not Applicable |
| Oxirane, 2,2'-[1,4-butanediylbis (oxymethylene)]bis- - (2425-79-8) | 1,134.00, Rat | 1,130.00, Rabbit | Not Applicable | Not Applicable |

| Item | Category | Hazard |
|---|----------------|--|
| Acute Toxicity (mouth) | Not Classified | Not Applicable |
| Acute Toxicity (skin) | Not Classified | Not Applicable |
| Acute Toxicity (inhalation) | Not Classified | Not Applicable |
| Skin corrosion/irritation | 2 | Causes skin irritation. |
| Eye damage/irritation | 2 | Causes serious eye irritation. |
| Sensitization (respiratory) | Not Classified | Not Applicable |
| Sensitization (skin) | 1 | May cause an allergic skin reaction. |
| Germ toxicity | Not Classified | Not Applicable |
| Carcinogenicity | Not Classified | Not Applicable |
| Reproductive Toxicity | Not Classified | Not Applicable |
| Specific target organ systemic toxicity (single exposure) | Not Classified | Not Applicable |
| Specific target organ systemic Toxicity (repeated exposure) | 2 | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not Classified | Not Applicable |

12. Ecological information

12.1. Toxicity

The preparation has been assessed according to the GHS criteria and is classified as dangerous for the environment, using the toxicity data listed below.

There are no data available on the product itself.

The product should not be allowed to enter drains or water courses.

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|--|-------------------------------|----------------------------|---|
| Epoxy Resin - (25068-38-6) | 3.10, Pimephales promelas | 1.40, Daphnia magna | Not Applicable |
| Crystalline Silica - Quartz - (14808-60-7) | Not Applicable | Not Applicable | Not Applicable |
| Bisphenol F epoxy resin (av.mol.wt.<700) - (28064-14-4) | 9.00, Oncorhynchus mykiss | 9.00, Daphnia magna | Not Applicable |
| Oxirane, 2,2'-[1,4-butanediylbis (oxymethylene)]bis- - (2425-79-8) | 24.00, Danio rerio | 75.00, Daphnia magna | Not Applicable |
| Nonylphenol - (25154-52-3) | 0.135, Pimephales promelas | 0.104, Daphnia magna | 1.30 (72 hr), Scenedesmus subspicatus |
| 1-Methoxy-2-propanol - (107-98-2) | 1,000.00, Oncorhynchus mykiss | 500.00, Daphnia magna | 1,000.00 (96 hr), Selenastrum capricornutum |

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available

13. Disposal considerations

13.1. Waste treatment methods

Do not allow into drains or water courses. Wastes and empty containers should be disposed of in accordance with State and Federal regulations.

Using information provided in this data sheet advice should be obtained from the local Waste Regulation Authority as to whether special waste regulations apply.

14. Transport information

14.1. UN number

3082

14.2. UN proper shipping name

Environmentally Hazardous Substance N.O.S. (Contains Liquid Epoxy Resins)

14.3. Transport hazard class(es)

Road and Rail Transport (ADG7)

UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Liquid Epoxy Resins), 9, III, .3Z

IMDG
reference :

Class/Div 9

Sub Class

Ems

F-A,S-F

ICAO/IATA
Class 9

Sub Class

14.4. Packing group

III

14.5. Environmental hazards

Road and Rail Transport (ADG7) Environmentally Hazardous: Yes

IMDG reference : Marine Pollutant: Yes (Epoxy Resin)

14.6. Special precautions for user

No further information

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

15. Regulatory information

The product and all its components complies with these local regulations

Australia:

The Australian Industrial Chemicals (Notification and Assessment) Act 1989 (Commonwealth) - NICNAS

New Zealand:

The New Zealand inventory of chemicals (NZIoC) or otherwise are in compliance with all other EPA NZ requirements.

Singapore:

The labelling, SDS, PEL and other requirements to the WSH (General Provision) regulations

Other regional regulatory Information:

None noted.

16. Other information

Contact Point:

Marine, Protective and Yacht Coatings Regulatory Affairs Manager

+61 (0)407 119 025

The information on this Safety Data Sheet (SDS) is based upon the present state of our knowledge and on current State and Federal laws. The product should not be used for purposes other than shown in the SDS without first obtaining written advice. It is always the responsibility of the user to take all necessary steps to meet the demands of applicable legislation.

The information in this SDS is required according to State and Federal WHS legislation (as amended). Each user should read the SDS and consider the information of how this product is used and handled in conjunction with other products and components.

The information provided in this SDS relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and not to be considered a warranty or quality specification.

The full text of the Hazard (H) phrases appearing in section 2 & 3 are:

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

**This SDS is valid for 5 years from the revised date on page 1.
The revision date is in American format (e.g. MM/DD/YY).**

End of document



All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Akzo Nobel however makes no warranty as to the accuracy of and/or sufficiency of such information.