

**Safety Data Sheet****NVA465 Enviroline 405HTR PART B****Version Number 5 Revision Date 11/29/16****1. Product and company identification****1.1. Product identifier** Enviroline 405HTR PART B

Product Code NVA465

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

Intended use Refer Technical Data Sheet.

For professional use only.

Application Method Refer Technical Data Sheet.

**1.3. Details of the supplier of the safety data sheet****Importer or****Manufacturer**AKZO NOBEL International Paint (Suzhou) Co.Ltd.  
No.129 Hongxi Road  
New District Suzhou,  
Jiangsu, 215151  
China**Telephone No.** 86(512)66167888**Fax No.** 86(512)66163911**1.4. Emergency telephone number (24 hour)** 86(532)83889090**For Poisons Advice telephone** For Advice to Doctors & Hospitals only**2. Hazard identification of the product****2.1. Classification of the substance or mixture**

Acute Tox. 5;H303 May be harmful if swallowed.

Acute Tox. 4;H332 Harmful if inhaled.

Skin Corr. 1;H314 Causes severe skin burns and eye damage.

Skin Sens. 1;H317 May cause an allergic skin reaction.

Aquatic Chronic 3;H412 Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

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

**Danger**

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H412 Harmful to aquatic life with long lasting effects.

**[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.  
P271 Use only outdoors or in a well-ventilated area.  
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]:**

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+352 IF ON SKIN: Wash with soap and water.  
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.  
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
P310 Immediately call a POISON CENTER or doctor / physician.  
P312 Call a POISON CENTER or doctor / physician 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.  
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P363 Wash contaminated clothing before reuse.  
P370+378 In case of fire: Use alcohol resistant foam, CO<sub>2</sub>, powder, water spray for extinction. Do not use water jet.

**[Storage]:**

P403+235 Store in a well ventilated place. Keep cool.  
P405 Store locked up.

**[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 hazardous substances.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Formaldehyde Polymer with Benzenamine, Hydrogenated CAS Number: 0135108-88-2	10- <25	Acute Tox. 4;H302 Skin Corr. 1;H314	[1]
4,4'-Diaminodicyclohexylmethane CAS Number: 0001761-71-3	10- <25	Acute Tox. 4;H302 Skin Corr. 1;H314 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Cardenol CAS Number: 0008007-24-7	2.5- <10		[1]
Aluminium oxide CAS Number: 0001344-28-1	2.5- <10		[1][2]

Xylene CAS Number: 0001330-20-7	1- <2.5	Flam. Liq. 3;H226 Acute Tox. 4;H332 Acute Tox. 4;H312 Skin Irrit. 2;H315 Asp. Tox. 1;H304 Eye Irrit. 2;H319 STOT SE 3;H335	[1][2]
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[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 immediately. Wash skin thoroughly with soap and water or use a recognised skin cleanser. Do NOT use solvents and thinners. Do NOT reuse clothing without thorough cleaning, preferably dispose of the contaminated clothing.

#### Eye Contact

Material is corrosive. Severe damage to eyes will result unless urgent attention is given. Irrigate copiously with clean fresh water for at least 15 minutes, holding the eyelids apart. Immediately 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, CO<sub>2</sub>, 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**

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapour levels are below the Lower Explosive Limit before re-entering.

## **6.2. Environmental precautions**

Do not allow spills to enter drains or watercourses.

## **6.3. Methods and material for containment and cleaning up**

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/or 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.

# **7. Handling and storage**

## **7.1. Precautions for safe handling**

### **Handling**

This coating 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

Exposure standards are those provided by the ACGIH (American Conference of Government Industrial Hygienists).

Material	Short term (15 min. ave)		Long term (8hr time weighted average)		Comments
	ppm	mg/m <sup>3</sup>	ppm	mg/M3	
Xylene	150	662	100	441	

Key to notification

(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

### 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 a full face shield if mixing or pouring this material

### Skin Protection

Wear gloves. Gloves must be resistant to corrosive materials. Nitrile or PVC gloves are suitable. Do not use cotton or leather gloves.

### 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

When concentrations exceed the exposure limits shown above, workers must wear appropriate approved respirators. Provision of other controls such as exhaust ventilation should be considered if practical.

### Thermal hazards

No Data Available

## 9. Physical and chemical properties

Colour	Light Coloured 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)	
Flash Point (C)	66
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.1 ( Xylene ) Upper Explosive Limit: 6.6 ( Xylene )
Vapour pressure (Pa)	Not Measured
Vapour Density	Heavier than air.
Specific Gravity	1.69
Solubility in Water	Immiscible
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Autoignition temperature (°C)	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

Stable under recommended storage and handling conditions (see section 7). When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

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

### 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 reversible damage.

Amine based materials may cause skin irritation and sensitisation.

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
4,4'-Diaminodicyclohexylmethane - (1761-71-3)	1,000.00, Rat	Not Available	Not Available	0.40, Mouse
Aluminium oxide - (1344-28-1)	5,000.00, Rat	Not Available	Not Available	Not Available
Cardenol - (8007-24-7)	2,000.00, Rat	Not Available	Not Available	Not Available
Formaldehyde Polymer with Benzenamine, Hydrogenated - (135108-88-2)	367.00, Rat	1,000.00, Rabbit	Not Available	Not Available
Xylene - (1330-20-7)	4,299.00, Rat	1,548.00, Rabbit	Not Available	20.00, Rat

Item	Category	Hazard
Acute Toxicity (mouth)	5	May be harmful if swallowed.
Acute Toxicity (skin)	Not Classified	Not Applicable
Acute Toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	1	Causes severe skin burns and eye damage.
Eye damage/irritation	Not Classified	Not Applicable
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	Not Classified	Not Applicable

(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
Formaldehyde Polymer with Benzenamine, Hydrogenated - (135108-88-2)	Not Available	Not Available	Not Available
4,4'-Diaminodicyclohexylmethane - (1761-71-3)	46.00, Leuciscus idus	6.84, Daphnia magna	140.00 (72 hr), Algae
Cardenol - (8007-24-7)	Not Available	Not Available	Not Available
Aluminium oxide - (1344-28-1)	Not Available	Not Available	Not Available
Xylene - (1330-20-7)	Not Available	Not Available	Not Available

### 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

2922

### 14.2. UN proper shipping name

4,4'-Diaminodicyclohexylmethane

### 14.3. Transport hazard class(es)



**Road and Rail Transport**

4,4'-Diaminodicyclohexylmethane

**IMDG  
reference :****Class/Div** 8**Sub Class** 6.1**Ems**

F-A,S-B

**ICAO/IATA****Class** Class 8 Sub Risk  
6.1**Sub Class** 6.1**14.4. Packing group**

II

**14.5. Environmental hazards****Road and Rail Transport** Environmentally Hazardous: No**IMDG  
reference :**

Marine Pollutant: No

**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**

This product and all its components complies with the chemical and transport regulations from the country listed in section 1.3.

Other regulatory information specific to the hazardous chemical(s):

None noted.

**16. Other information**

The information on this SDS is based upon the present state of our knowledge and on current law. The product should not be used for purposes other than shown in the product data sheet 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 Safety Data Sheet is required according to legislation.

The full text of the phrases appearing in section 3 is:

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

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.

H336 May cause drowsiness and dizziness.

H372 Causes damage to organs through prolonged or repeated exposure.

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.