ENERGY GUARD

efficiency coatings for hvac & r equipment

Reviewed on 07/27/2009

### 1 Identification of substance

- · Product details
- · Trade name: EnergyGuard DCC FluxCoat
- · Application of the substance / the preparation Paint
- · Manufacturer/Supplier:

Monopoly B.V.
Lassusstraat 9A
1075 GV Amsterdam
The Netherlands
Tel: (+31)-20-679-10-27
info@energyguardcorp.com

- · Information department: Product Safety Department
- · Emergency information: Tel: (+31)-20-679-10-27

## 2 Composition/Data on components

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

| <b>Dangerous</b> | components:   |           |
|------------------|---|-----------|
| 64742-95-6       | Solvent naphtha (petroleum), light arom.  Danger: \$\strict{\phi}\$ 3.10/1  Warning: \$\strict{\phi}\$ 2.6/3; \$\sqrt{\phi}\$ 3.2/2, 3.8/3  \$\strict{\phi}\$ 4.1.C/2 | 15-20%    |
| 1330-20-7        | xylene<br>Warning: <b>(</b> ) 2.6/3; <b>(</b> ) 3.1.D/4, 3.1.I/4, 3.2/2   | 10-15%    |
| 108-65-6         | 2-methoxy-1-methylethyl acetate Warning:   2.6/3;   3.3/2A  | 10-15%    |
| 9016-87-9        | diphenylmethanediisocyanate,isomeres and homologues  Danger: \$\strue{\Phi}\$ 3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1  Warning: \$\tau\$ 3.1.1/4, 3.8/3                       | 10-15%    |
| 123-86-4         | n-butyl acetate Warning:   2.6/3;  3.8/3  | 3-5%      |
| 64742-82-1       | Naphtha (petroleum), hydrodesulfurized heavy Danger: 🗞 3.6/1B, 3.10/1   | 1-2.5%    |
| 4083-64-1        | 4-isocyanatosulphonyltoluene Danger: 🗞 3.4.R/1, 3.2/2, 3.3/2A Warning: 🗘 3.8/3  | 1-2.5%    |
| 95-63-6          | 1,2,4-trimethylbenzene<br>Warning: �� 2.6/3; �� 3.1.I/4, 3.2/2, 3.3/2A, 3.8/3<br>�� 4.1.C/2   | 0.1-0.15% |

## 3 Hazards identification

· Hazard description:



Harmful

· Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of international guidelines. Flammable.

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

Limited evidence of a carcinogenic effect.

May cause sensitisation by inhalation and skin contact.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

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Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Contains isocyanates. See information supplied by the manufacturer.

#### · Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0 - 4)



Health = 2Fire = 3Reactivity = 0

### · HMIS-ratings (scale 0 - 4)



Health = \*2Fire = 3Reactivity = 0

### GHS label elements



#### Danger

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.

3.6/2 - Suspected of causing cancer.

3.9/2 - May cause damage to organs through prolonged or repeated exposure.



#### Warning

2.6/3 - Flammable liquid and vapour.



## Warning

3.1/4 - Harmful if inhaled.

3.8/3 - May cause respiratory irritation.

3.1/5 - May be harmful in contact with skin.

4.1/3 - Harmful to aquatic life with long lasting effects.

#### · Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

In case of inadequate ventilation wear respiratory protection.

#### Response:

IF ON SKIN: Wash with plenty of soap and water.

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IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

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

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

· Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal:

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

#### 4 First aid measures

· General information:

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. If symptoms persist, consult a doctor.

· After swallowing: If symptoms persist consult doctor.

#### 5 Fire fighting measures

- · Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Protective equipment: Mouth respiratory protective device.

### 6 Accidental release measures

- · Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- · Measures for environmental protection:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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## 7 Handling and storage

- · Handling:
- · Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.

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

· Further information about storage conditions: Keep receptacle tightly sealed.

## 8 Exposure controls and personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- 1330-20-7 xylene 435 mg/m³, 100 ppm PEL Short-term value: 655 mg/m³, 150 ppm REL Long-term value: 435 mg/m³, 100 ppm TLV Short-term value: 651 mg/m³, 150 ppm
  - Long-term value: 434 mg/m³, 100 ppm

#### 108-65-6 2-methoxy-1-methylethyl acetate

WEEL 50 ppm

## 123-86-4 n-butyl acetate

|     | 710 mg/m³, 150 ppm                   |
|-----|--------------------------------------|
| REL | Short-term value: 950 mg/m³, 200 ppm |
|     | Long-term value: 710 mg/m³, 150 ppm  |
| TLV | Short-term value: 950 mg/m³, 200 ppm |

Long-term value: 713 mg/m³, 150 ppm

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

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

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application.

· Penetration time of glove material

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

· Eye protection:



Tightly sealed goggles

| General Information   |   |
|---|---|
| Form:<br>Color:<br>Odor:  | Fluid According to product specification Characteristic                                   |
| · Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range: | Undetermined.<br>137℃ (279年)  |
| · Flash point:  | 33°C (91°F)   |
| · Ignition temperature:   | 315℃ (599 <b></b> F)  |
| · Auto igniting:  | Product is not selfigniting.  |
| · Danger of explosion:  | Product is not explosive. However, formation of explosive air/vapor mixture are possible. |
| Explosion limits: Lower: Upper:   | 0.7 Vol %<br>10.8 Vol %   |
| · Vapor pressure at 20℃ (68℉):  | 6.7 hPa (5 mm Hg)   |
| · Density at 20℃ (68℉):   | 1.165 g/cm³   |
| · Solubility in / Miscibility with Water:   | Not miscible or difficult to mix.   |
| · Viscosity:<br>Kinematic at 20℃ (68℉):   | 15 s (ISO 6 mm)   |
| Solvent content: Organic solvents: VOC content:                                       | 46.1 %<br>46.1 %  |
|   |   |

## 10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Dangerous reactions No dangerous reactions known.
- · Dangerous products of decomposition: No dangerous decomposition products known.

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## 11 Toxicological information

· Acute toxicity:

| · LD/LC50 values that are relevant for classification: |   |                     |  |  |  |  |  |  |
|--|---|---------------------|--|--|--|--|--|--|
| 64742-95   | 64742-95-6 Solvent naphtha (petroleum), light arom. |                     |  |  |  |  |  |  |
| Oral   | LD50  | >6800 mg/kg (rat)   |  |  |  |  |  |  |
| Dermal   | LD50  | >3400 mg/kg (rab)   |  |  |  |  |  |  |
| Inhalative   | LC50/4 h  | >10.2 mg/l (rat)    |  |  |  |  |  |  |
| 1330-20-   | 1330-20-7 xylene                                    |                     |  |  |  |  |  |  |
| Oral   | LD50  | 4300 mg/kg (rat)    |  |  |  |  |  |  |
| Dermal   | LD50  | 2000 mg/kg (rabbit) |  |  |  |  |  |  |

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· Additional toxicological information:

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

Irritant

## 12 Ecological information

- · Ecotoxical effects:
- · Remark: Harmful to fish
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

### 13 Disposal considerations

- · Product:
- · 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

· DOT regulations:



· Hazard class:

3

· Identification number:

UN1263

· Packing group:

· Proper shipping name (technical name): PAINT

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# Material Safety Data Sheet acc. to ISO/DIS 11014

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· Label



· ADR/RID class: 3 Flammable liquids

3

· Danger code (Kemler): 30 · UN-Number: 1263 · Packaging group: III· Label:

· Description of goods: **1263 PAINT** 

· Maritime transport IMDG:



· IMDG Class: 1263 · UN Number: · Label 3 · Packaging group: · EMS Number: F-E,S-E

· Marine pollutant: No **PAINT** · Propper shipping name:

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: · UN/ID Number: 1263 · Label III· Packaging group: **PAINT** · Propper shipping name:

· UN "Model Regulation": UN1263, PAINT, 3, III

# 15 Regulations

- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

1330-20-7 xylene

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

80-05-7 bisphenol A

95-63-6 1,2,4-trimethylbenzene

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

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|--|-----------------|
| · 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.                               |                 |
| · Cancerogenity categories                                       |                 |
| · EPA (Environmental Protection Agency)                          |                 |
| 1330-20-7 xylene   | 1               |
| 9016-87-9 diphenylmethanediisocyanate,isomeres and homologues    | CBL             |
| · IARC (International Agency for Research on Cancer)             |                 |
| 1330-20-7 xylene   |                 |
| 9016-87-9 diphenylmethanediisocyanate,isomeres and homologues    | ,               |
| · NTP (National Toxicology Program)                              |                 |
| None of the ingredients is listed.                               |                 |
| · TLV (Threshold Limit Value established by ACGIH)               |                 |
| 1330-20-7 xylene   | A               |
| NIOSH-Ca (National Institute for Occupational Safety and Health) | ·               |
| None of the ingredients is listed.                               |                 |
| · OSHA-Ca (Occupational Safety & Health Administration)          |                 |
| None of the ingredients is listed.                               |                 |

- · Product related hazard informations:
- · Hazard symbols:



Harmful

· Hazard-determining components of labelling:

diphenylmethanediisocyanate,isomeres and homologues 4-isocyanatosulphonyltoluene

· Risk phrases:

Flammable.

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

Limited evidence of a carcinogenic effect.

May cause sensitisation by inhalation and skin contact.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Safety phrases:

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer). Wear suitable protective clothing and gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Use only in well-ventilated areas.

Avoid release to the environment. Refer to special instructions/safety data sheets.

· Special labeling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer.

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### 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.

- · Department issuing MSDS: product safety department
- · Contact: Tel: (+31)-20-679-10-27
- · 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)

RID: Reglement 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

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA