

## 1 Identification of substance

- **Product details**
- **Trade name:** **EnergyGuard DCC Aluminum**  
**According the DCC technology!**
- **Article number:** DCC218-1
- **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.

- **Dangerous components:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues Danger: ⚠ 3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1 Warning: ⚠ 3.1.I/4, 3.8/3	15-20%
1330-20-7	xylene Warning: ⚠ 2.6/3; ⚠ 3.1.D/4, 3.1.I/4, 3.2/2	7-10%
64742-95-6	Solvent naphtha (petroleum), light arom. Danger: ⚠ 3.10/1 Warning: ⚠ 2.6/3; ⚠ 3.2/2, 3.8/3 ⚠ 4.1.C/2	7-10%
108-65-6	2-methoxy-1-methylethyl acetate Warning: ⚠ 2.6/3; ⚠ 3.3/2A	7-10%
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy Danger: ⚠ 3.6/1B, 3.10/1	7-10%
80-05-7	bisphenol A Danger: ⚠ 3.3/1 Warning: ⚠ 3.7/2; ⚠ 3.4.S/1, 3.8/3	3-5%
123-86-4	n-butyl acetate Warning: ⚠ 2.6/3; ⚠ 3.8/3	2.5-3%
95-63-6	1,2,4-trimethylbenzene Warning: ⚠ 2.6/3; ⚠ 3.1.I/4, 3.2/2, 3.3/2A, 3.8/3 ⚠ 4.1.C/2	0.25-0.5%

## 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.

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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.

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)**



• **HMSI-ratings (scale 0 - 4)**



• **GHS label elements**



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.



2.6/3 - Flammable liquid and vapour.



3.1/4 - Harmful if inhaled.

3.8/3 - May cause respiratory irritation.

**Warning**

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.

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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.

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: CO<sub>2</sub>, 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:** CO<sub>2</sub>, 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.

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Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

## 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.
- **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.

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

### 1330-20-7 xylene

PEL	435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 655 mg/m <sup>3</sup> , 150 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm BEI

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

WEEL	50 ppm
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### 123-86-4 n-butyl acetate

PEL	710 mg/m <sup>3</sup> , 150 ppm
REL	Short-term value: 950 mg/m <sup>3</sup> , 200 ppm Long-term value: 710 mg/m <sup>3</sup> , 150 ppm
TLV	Short-term value: 950 mg/m <sup>3</sup> , 200 ppm Long-term value: 713 mg/m <sup>3</sup> , 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.

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

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 137°C (279°F)

· **Flash point:** 30°C (86°F)

· **Ignition temperature:** 315°C (599°F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Density at 20°C (68°F):** 1.102 g/cm<sup>3</sup>

· **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

· **Viscosity:**

**Kinematic at 20°C (68°F):** 100 s (ISO 6 mm)

· **Solvent content:**

<b>Organic solvents:</b>	38.0 %
<b>VOC content:</b>	38.0 %

· **Solids content:** 62.0 %

### 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:**

**1330-20-7 xylene**

Oral	LD50	4300 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

**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)

**80-05-7 bisphenol A**

Oral	LD50	3250 mg/kg (rat)
Dermal	LD50	3000 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

· **Ecotoxicological 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.

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### 14 Transport information

· **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1263
- **Packing group:** III
- **Proper shipping name (technical name):** PAINT
- **Label:** 3

- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **Proper shipping name:** PAINT

- **UN "Model Regulation":** -

### 15 Regulations

· **Sara**

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

584-84-9	4-methyl-m-phenylene diisocyanate
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· **Section 313 (Specific toxic chemical listings):**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
1330-20-7	xylene
80-05-7	bisphenol A
95-63-6	1,2,4-trimethylbenzene
584-84-9	4-methyl-m-phenylene diisocyanate

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **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.

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· <b>Chemicals known to cause developmental toxicity:</b>		
None of the ingredients is listed.		
· <b>Cancerogeny categories</b>		
· <b>EPA (Environmental Protection Agency)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	CBD
1330-20-7	xylene	I
· <b>IARC (International Agency for Research on Cancer)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
1330-20-7	xylene	3
· <b>NTP (National Toxicology Program)</b>		
None of the ingredients is listed.		
· <b>TLV (Threshold Limit Value established by ACGIH)</b>		
1330-20-7	xylene	A4
584-84-9	4-methyl-m-phenylene diisocyanate	A4
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
584-84-9	4-methyl-m-phenylene diisocyanate	
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

· **Product related hazard informations:**

· **Hazard symbols:**



Harmful

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

diphenylmethanediisocyanate, isomeres and homologues  
bisphenol A

· **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.

**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**

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• **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: 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

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