



1.) Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Trade name

CLEARSHIELD TYPE C GLOSS

Use of the substance/preparation

Liquid laminate

Company/undertaking identification

Address

Marabu North America LP
PO Box 40397
USA Charleston, SC 29423-0397

Telephone no. ++1-843-886-0094

Fax no. ++1-843-886-3701

E-mail address of person responsible for this SDS

PRSI@marabu.de

Information provided by / telephone

Product safety (+49) (0)7141/691-116 or 232

Emergency telephone

Transportation Emergencies: Chemtrec

International: 1703 527 3887

U.S. Domestic: 1-800-424-9300

Other Emergencies: 1-843-886-0094

2.) Hazards possibilities

Classification

R43-52/53

R phrases

43

May cause sensitization by skin contact.

52/53

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

Specific hazards to man and the environment

The product is water polluting.

3.) Composition / information on ingredients

Chemical characterization

Liquid laminate containing water, based on polyurethane

Hazardous ingredients

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

CAS no. 9064-13-5

Concentration >= 1 < 5 %-b.w.

Classification Xi;R43

**Safety data sheet in accordance with regulation (EC) No 1907/2006**

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

N-METHYL-2-PYRROLIDONE

CAS no. 872-50-4
EINECS no. 212-828-1
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36/38
Repr.Cat. 2;R61

PROPANE-1,2-DIOL

CAS no. 57-55-6
EINECS no. 200-338-0
Concentration >= 1 < 5 %-b.w.

2-(2-BUTOXYETHOXY)ETHANOL

CAS no. 112-34-5
EINECS no. 203-961-6
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36

POLYPROPYLENGLYCOLE

Concentration >= 1 < 5 %-b.w.
Classification Xn;R22

(2-METHOXY-DI-METHYLETHOXY)PROPANOLE

CAS no. 111109-77-4
ELINCS number 404-640-5
Concentration >= 1 < 5 %-b.w.

MIXTURE OF ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-HYDROXYPOLY(OXYETHYLENE) AND ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYLOXYPOLY(OXYETHYLENE)

ELINCS number 400-830-7
Concentration >= 0,5 < 1 %-b.w.
Classification Xi;R43
N;R51/53

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE

CAS no. 41556-26-7
EINECS no. 255-437-1
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

CAS no. 82919-37-7
EINECS no. 280-060-4
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

4.) First aid measures

General information

Immediately remove all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Unconsciousness: lateral position - call a physician.

After inhalation

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a physician.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

After skin contact

Wash away with soap and water and rinse. Do NOT use solvents or thinners!

After eye contact

Flush with plenty of water (10 - 15 min.).

After ingestion

Call a physician. Keep at rest. Do not induce vomiting.

5.) Fire-fighting measures

Suitable extinguishing media

Carbon dioxide, foam, sand, water.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

Material supports the burning only after evaporation of the watery content. In this case, dangerous smoke gases such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced. Therefore, take suitable precautionary measures for fire fighting. Residues remaining after a fire have to be disposed of appropriately.

Special protective equipment for fire-fighting

Breathing apparatus with an independent source of air may be required.

Other information

Cool endangered containers with water in case of fire.

6.) Accidental release measures

Personal precautions

Provide for good ventilation. Do not breathe vapours. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up

Remove by liquid absorbing material (e.g. kieselguhr) and process according to waste regulations. Clean preferably with a detergent; avoid use of solvents.

7.) Handling and storage

Handling

Advice on safe handling

Avoid vapour concentration higher than the workplace exposure limits. Do not leave containers open. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. When using do not eat, drink or smoke. Comply with the health and safety at work laws.

Advice on protection against fire and explosion

Material supports the burning only after evaporation of the watery content.

Storage

Requirements for storage rooms and vessels

Store in cool but frostfree conditions in frostfree containers. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Always keep in containers of same material as the original one.



8.) Expose controls/personal protection

Exposure limit values

N-METHYL-2-PYRROLIDONE

WEL (EH40/2005)

Value 25 ml/m³ 103 mg/m³STEL 75 ml/m³ 309 mg/m³Skin resorption /
sensibilisation Sk

2-(2-BUTOXYETHOXY)ETHANOL

2000/39/EC

Value 10 ml/m³ 67,5 mg/m³STEL 15 ml/m³ 101,2 mg/m³

PROPANE-1,2-DIOL

WEL (EH40/2005)

Value 150 ml/m³ 474 mg/m³

(2-METHOXY-DI-METHYLETHOXY)PROPANOLE

Lijst van de grenswaarden
voor blootstelling aan
chemische agentia (B)Value 50 ml/m³ 308 mg/m³Skin resorption /
sensibilisation D

WEL (EH40/2005)

Value 50 ml/m³ 308 mg/m³Skin resorption /
sensibilisation Sk

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 solvent vapour below the OEL, suitable respiratory protection must be worn.

Occupational exposure controls

Respiratory protection

Breathing protection equipment required in inadequately ventilated places and during spraying.

Respiratory filter (gas) : A

Respiratory filter (part): P2



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Hand protection

Chemical protection gloves are suitable, which are tested according to EN 374.

Recommendation for protection against components normally found in the products:

For short-term contact (e.g. spray protection) as well as for long-term contact (e.g. cleaning purposes):

Suitable material: LLDPE

Material thickness: 0.06 mm

Penetration time: >480 min.

Protective gloves must always be tested and confirmed with regard to suitability to each specific working environment (e.g. mechanical resistance, product compatibility, antistatic).

Follow the instructions and information from the glove manufacturer in reference to use, storage, care, and frequency of glove exchange.

Protective gloves should be immediately replaced upon being damaged or when showing first signs of wear. Preventive skin protection (skin protective cream) is recommended. Contaminated skin areas should immediately be washed (follow data sheet for skin protection M 042).

Working procedures are to be so arranged that the permanent wearing of gloves will not be necessary.

We recommend to set up a hand protection plan, which is adapted to the needs of the local business. Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG Druck und Papierverarbeitung (528.1, 528.2, 531.X).

Eye protection

Use safety glasses.

Skin protection

All parts of the body should be washed after contact. Use re-greasing skin cream.

General protective and hygiene measures

The usual precautionary measures for the handling of chemicals have to be observed.

9.) Physical and chemical properties

General information

Form	liquid
Colour	milky
Odour	like solvent

Important health, safety and environmental information

Changes in physical state

Type	Starts to boil	
Value	100	°C
Reference substance	(water)	

Flash point

Value	not applicable
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Ignition temperature

Value	not applicable
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Explosion limits

Remarks	not applicable
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Vapour pressure

Value	23		hPa
Reference temperature	20	°C	
Reference substance	(water)		



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Density

Value	1,03		g/cm ³
Reference temperature	20	°C	

Solubility in water

Remarks mixable

pH value

Value	9	- 10
Reference temperature	20	°C

Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

10.) Stability and reactivity

Conditions to avoid

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

Materials to avoid

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

Hazardous decomposition products

When exposed to high temperatures, dangerous decomposition products such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced.

11.) Toxicological information

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated workplace exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

May cause sensitization by skin contact.

Splashes in the eyes may cause mild irritation and cause the eyelids to stick together.

If swallowed, stomach complaints and irritation of the digestive organs may result.

Ingredient N-methyl-2-pyrrolidone may cause harm to the unborn child.

Other information

There are no data available on the preparation itself.

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EEC).

12.) Ecological information

General information / ecology

There are no data available on the preparation itself. Do not empty into waters or drains

13.) Disposal considerations

Product

EWC waste code 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

Dispose of or incinerate in accordance with corresponding regulations.

Uncontaminated packaging

Dispose of only completely emptied containers!

**Safety data sheet in accordance with regulation (EC) No 1907/2006**

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Code of waste pursuant to European Council Directive on waste: 150102 (Waste of packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified - packaging (including separately collected municipal packaging waste) - plastic packaging).

14.) Transport information**Land transport ADR/RID**

Label -, -, -
Remarks non-dangerous goods

Marine transport IMDG/GGVSee

Class -
UN number -
EmS -
Label -
Remarks The product does not constitute a hazardous substance in sea transport.

Air transport ICAO/IATA

Class -
Packing group -
UN number -
Label -
Remarks The product does not constitute a hazardous substance in air transport.

15.) Regulatory information**Labelling in accordance with EC directives**

The product is classified and labelled in accordance with EC directives/GefStoff V

Hazard symbols

Xi Irritant

Hazardous component(s) to be indicated on label

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

R phrases

43 May cause sensitization by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

28.2 After contact with skin, wash immediately with plenty of water and soap.
29 Do not empty into drains.
37/39 Wear suitable gloves and eye/face protection.

16.) Other information**Other information**

According to their chemical structure, the applied raw materials do not contain any antimony, arsenic, soluble barium, lead, cadmium, chromium, mercury and selenium.

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

43 May cause sensitization by skin contact.

N-METHYL-2-PYRROLIDONE

36/37/38 Irritating to eyes, respiratory system and skin.
61 May cause harm to the unborn child.

2-(2-BUTOXYETHOXY)ETHANOL

36 Irritating to eyes.

POLYPROPYLENGLYCOLE

22 Harmful if swallowed.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

MIXTURE OF ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-HYDROXPOLY(OXYETHYLENE) AND ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYLOXPOLY(OXYETHYLENE)

43

May cause sensitization by skin contact.

51/53

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

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE

43

May cause sensitization by skin contact.

50/53

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

METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

43

May cause sensitization by skin contact.

50/53

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

Department issuing safety data sheet

Product safety.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C GLOSS

Status: 01.01.2011

Product no.: WBCGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Contact person

Dipl.-Chem. G. Heller or Dipl.-Ing. U. Voetter.

The instructions are based on today's information and knowledge. The safety data sheet describes products in relation to safety requirements. These instructions do not assure application technological properties of the product.



1.) Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Trade name

CLEARSTAR TYPE C SATIN

Use of the substance/preparation

Liquid laminate

Company/undertaking identification

Address

Marabu North America LP
PO Box 40397
USA Charleston, SC 29423-0397

Telephone no. ++1-843-886-0094

Fax no. ++1-843-886-3701

E-mail address of person responsible for this SDS

PRSI@marabu.de

Information provided by / telephone

Product safety (+49) (0)7141/691-116 or 232

Emergency telephone

Transportation Emergencies: Chemtrec

International: 1703 527 3887

U.S. Domestic: 1-800-424-9300

Other Emergencies: 1-843-886-0094

2.) Hazards possibilities

Classification

R43-52/53

R phrases

43

May cause sensitization by skin contact.

52/53

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

Specific hazards to man and the environment

The product is water polluting.

3.) Composition / information on ingredients

Chemical characterization

Liquid laminate containing water, based on polyurethane

Hazardous ingredients

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

CAS no. 9064-13-5

Concentration >= 1 < 5 %-b.w.

Classification Xi;R43

**N-METHYL-2-PYRROLIDONE**

CAS no. 872-50-4
EINECS no. 212-828-1
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36/38
Repr.Cat. 2;R61

PROPANE-1,2-DIOL

CAS no. 57-55-6
EINECS no. 200-338-0
Concentration >= 1 < 5 %-b.w.

2-(2-BUTOXYETHOXY)ETHANOL

CAS no. 112-34-5
EINECS no. 203-961-6
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36

POLYPROPYLENGLYCOLE

Concentration >= 1 < 5 %-b.w.
Classification Xn;R22

(2-METHOXY-DI-METHYLETHOXY)PROPANOLE

CAS no. 111109-77-4
ELINCS number 404-640-5
Concentration >= 1 < 5 %-b.w.

MIXTURE OF ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-HYDROXYPOLY(OXYETHYLENE) AND ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYLOXYPOLY(OXYETHYLENE)

ELINCS number 400-830-7
Concentration >= 0,5 < 1 %-b.w.
Classification Xi;R43
N;R51/53

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE

CAS no. 41556-26-7
EINECS no. 255-437-1
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

CAS no. 82919-37-7
EINECS no. 280-060-4
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

4.) First aid measures

General information

Immediately remove all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Unconsciousness: lateral position - call a physician.

After inhalation

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a physician.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSTAR TYPE C SATIN

Status: 01.01.2011

Product no.: WBCLGCAN

Version : 2 / GB

Date of printing : 14.01.2011

After skin contact

Wash away with soap and water and rinse. Do NOT use solvents or thinners!

After eye contact

Flush with plenty of water (10 - 15 min.).

After ingestion

Call a physician. Keep at rest. Do not induce vomiting.

5.) Fire-fighting measures

Suitable extinguishing media

Carbon dioxide, foam, sand, water.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

Material supports the burning only after evaporation of the watery content. In this case, dangerous smoke gases such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced. Therefore, take suitable precautionary measures for fire fighting. Residues remaining after a fire have to be disposed of appropriately.

Special protective equipment for fire-fighting

Breathing apparatus with an independent source of air may be required.

Other information

Cool endangered containers with water in case of fire.

6.) Accidental release measures

Personal precautions

Provide for good ventilation. Do not breathe vapours. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up

Remove by liquid absorbing material (e.g. kieselguhr) and process according to waste regulations. Clean preferably with a detergent; avoid use of solvents.

7.) Handling and storage

Handling

Advice on safe handling

Avoid vapour concentration higher than the workplace exposure limits. Do not leave containers open. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. When using do not eat, drink or smoke. Comply with the health and safety at work laws.

Advice on protection against fire and explosion

Material supports the burning only after evaporation of the watery content.

Storage

Requirements for storage rooms and vessels

Store in cool but frostfree conditions in frostfree containers. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Always keep in containers of same material as the original one.



8.) Expose controls/personal protection

Exposure limit values

N-METHYL-2-PYRROLIDONE

WEL (EH40/2005)

Value 25 ml/m³ 103 mg/m³STEL 75 ml/m³ 309 mg/m³Skin resorption /
sensibilisation Sk

2-(2-BUTOXYETHOXY)ETHANOL

2000/39/EC

Value 10 ml/m³ 67,5 mg/m³STEL 15 ml/m³ 101,2 mg/m³

PROPANE-1,2-DIOL

WEL (EH40/2005)

Value 150 ml/m³ 474 mg/m³

(2-METHOXY-DI-METHYLETHOXY)PROPANOLE

Lijst van de grenswaarden
voor blootstelling aan
chemische agentia (B)Value 50 ml/m³ 308 mg/m³Skin resorption /
sensibilisation D

WEL (EH40/2005)

Value 50 ml/m³ 308 mg/m³Skin resorption /
sensibilisation Sk

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 solvent vapour below the OEL, suitable respiratory protection must be worn.

Occupational exposure controls

Respiratory protection

Breathing protection equipment required in inadequately ventilated places and during spraying.

Respiratory filter (gas) : A

Respiratory filter (part): P2



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSTAR TYPE C SATIN

Status: 01.01.2011

Product no.: WBCLGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Hand protection

Chemical protection gloves are suitable, which are tested according to EN 374.

Recommendation for protection against components normally found in the products:

For short-term contact (e.g. spray protection) as well as for long-term contact (e.g. cleaning purposes):

Suitable material: LLDPE

Material thickness: 0.06 mm

Penetration time: >480 min.

Protective gloves must always be tested and confirmed with regard to suitability to each specific working environment (e.g. mechanical resistance, product compatibility, antistatic).

Follow the instructions and information from the glove manufacturer in reference to use, storage, care, and frequency of glove exchange.

Protective gloves should be immediately replaced upon being damaged or when showing first signs of wear. Preventive skin protection (skin protective cream) is recommended. Contaminated skin areas should immediately be washed (follow data sheet for skin protection M 042).

Working procedures are to be so arranged that the permanent wearing of gloves will not be necessary.

We recommend to set up a hand protection plan, which is adapted to the needs of the local business. Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG Druck und Papierverarbeitung (528.1, 528.2, 531.X).

Eye protection

Use safety glasses.



Skin protection

All parts of the body should be washed after contact. Use re-greasing skin cream.

General protective and hygiene measures

The usual precautionary measures for the handling of chemicals have to be observed.

9.) Physical and chemical properties

General information

Form	liquid
Colour	milky
Odour	like solvent

Important health, safety and environmental information

Changes in physical state

Type	Starts to boil	
Value	100	°C
Reference substance	(water)	

Flash point

Value	not applicable
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Ignition temperature

Value	not applicable
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Explosion limits

Remarks	not applicable
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Vapour pressure

Value	23		hPa
Reference temperature	20	°C	
Reference substance	(water)		

Density

Value	1,03		g/cm ³
Reference temperature	20	°C	

Solubility in water

Remarks	mixable
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pH value

Value	9	-	10
Reference temperature	20	°C	

Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

10.) Stability and reactivity

Conditions to avoid

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

Materials to avoid

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

Hazardous decomposition products

When exposed to high temperatures, dangerous decomposition products such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced.



11.) Toxicological information

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated workplace exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

May cause sensitization by skin contact.

Splashes in the eyes may cause mild irritation and cause the eyelids to stick together.

If swallowed, stomach complaints and irritation of the digestive organs may result.

Ingredient N-methyl-2-pyrrolidone may cause harm to the unborn child.

Other information

There are no data available on the preparation itself.

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EEC).

12.) Ecological information

General information / ecology

There are no data available on the preparation itself. Do not empty into waters or drains

13.) Disposal considerations

Product

EWC waste code 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

Dispose of or incinerate in accordance with corresponding regulations.

Uncontaminated packaging

Dispose of only completely emptied containers!

Code of waste pursuant to European Council Directive on waste: 150102 (Waste of packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified - packaging (including separately collected municipal packaging waste) - plastic packaging).

14.) Transport information

Land transport ADR/RID

Label -, -, -
Remarks non-dangerous goods

Marine transport IMDG/GGVSee

Class -
UN number -
EmS -
Label -
Remarks The product does not constitute a hazardous substance in sea transport.

Air transport ICAO/IATA

Class -
Packing group -
UN number -
Label -
Remarks The product does not constitute a hazardous substance in air transport.



15.) Regulatory information

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC directives/GefStoff V

Hazard symbols

Xi Irritant

Hazardous component(s) to be indicated on label

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

R phrases

43 May cause sensitization by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

28.2 After contact with skin, wash immediately with plenty of water and soap.
29 Do not empty into drains.
37/39 Wear suitable gloves and eye/face protection.

16.) Other information

Other information

According to their chemical structure, the applied raw materials do not contain any antimony, arsenic, soluble barium, lead, cadmium, chromium, mercury and selenium.

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

43 May cause sensitization by skin contact.

N-METHYL-2-PYRROLIDONE

36/37/38 Irritating to eyes, respiratory system and skin.
61 May cause harm to the unborn child.

2-(2-BUTOXYETHOXY)ETHANOL

36 Irritating to eyes.

POLYPROPYLENGLYCOLE

22 Harmful if swallowed.

MIXTURE OF ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-HYDROXYPOLY(OXYETHYLENE) AND ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-

5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYLOXYPOLY(OXYETHYLENE)

43 May cause sensitization by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE

43 May cause sensitization by skin contact.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

43 May cause sensitization by skin contact.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing safety data sheet

Product safety.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSTAR TYPE C SATIN

Status: 01.01.2011

Product no.: WBCLGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Contact person

Dipl.-Chem. G. Heller or Dipl.-Ing. U. Voetter.

The instructions are based on today's information and knowledge. The safety data sheet describes products in relation to safety requirements. These instructions do not assure application technological properties of the product.



1.) Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Trade name

CLEARSHIELD TYPE C SEMI-GLOSS

Use of the substance/preparation

Liquid laminate

Company/undertaking identification

Address

Marabu North America LP
PO Box 40397
USA Charleston, SC 29423-0397

Telephone no. ++1-843-886-0094

Fax no. ++1-843-886-3701

E-mail address of person responsible for this SDS

PRSI@marabu.de

Information provided by / telephone

Product safety (+49) (0)7141/691-116 or 232

Emergency telephone

Transportation Emergencies: Chemtrec

International: 1703 527 3887

U.S. Domestic: 1-800-424-9300

Other Emergencies: 1-843-886-0094

2.) Hazards possibilities

Classification

R43-52/53

R phrases

43

May cause sensitization by skin contact.

52/53

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

Specific hazards to man and the environment

The product is water polluting.

3.) Composition / information on ingredients

Chemical characterization

Liquid laminate containing water, based on polyurethane

Hazardous ingredients

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

CAS no. 9064-13-5

Concentration >= 1 < 5 %-b.w.

Classification Xi;R43

**N-METHYL-2-PYRROLIDONE**

CAS no. 872-50-4
EINECS no. 212-828-1
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36/38
Repr.Cat. 2;R61

PROPANE-1,2-DIOL

CAS no. 57-55-6
EINECS no. 200-338-0
Concentration >= 1 < 5 %-b.w.

2-(2-BUTOXYETHOXY)ETHANOL

CAS no. 112-34-5
EINECS no. 203-961-6
Concentration >= 1 < 5 %-b.w.
Classification Xi;R36

POLYPROPYLENGLYCOLE

Concentration >= 1 < 5 %-b.w.
Classification Xn;R22

MIXTURE OF ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-HYDROXYPOLY(OXYETHYLENE) AND ALPHA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYL-OMEGA-3-(3-(2H-BENZOTRIAZOL-2-YL)-5-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONYLOXYPOLY(OXYETHYLENE)

ELINCS number 400-830-7
Concentration >= 0,5 < 1 %-b.w.
Classification Xi;R43
N;R51/53

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE

CAS no. 41556-26-7
EINECS no. 255-437-1
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

CAS no. 82919-37-7
EINECS no. 280-060-4
Concentration < 0,5 %-b.w.
Classification R43
N;R50/53

4.) First aid measures

General information

Immediately remove all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Unconsciousness: lateral position - call a physician.

After inhalation

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a physician.

After skin contact

Wash away with soap and water and rinse. Do NOT use solvents or thinners!

After eye contact

Flush with plenty of water (10 - 15 min.).



After ingestion

Call a physician. Keep at rest. Do not induce vomiting.

5.) Fire-fighting measures

Suitable extinguishing media

Carbon dioxide, foam, sand, water.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

Material supports the burning only after evaporation of the watery content. In this case, dangerous smoke gases such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced. Therefore, take suitable precautionary measures for fire fighting. Residues remaining after a fire have to be disposed of appropriately.

Special protective equipment for fire-fighting

Breathing apparatus with an independent source of air may be required.

Other information

Cool endangered containers with water in case of fire.

6.) Accidental release measures

Personal precautions

Provide for good ventilation. Do not breathe vapours. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up

Remove by liquid absorbing material (e.g. kieselguhr) and process according to waste regulations. Clean preferably with a detergent; avoid use of solvents.

7.) Handling and storage

Handling

Advice on safe handling

Avoid vapour concentration higher than the workplace exposure limits. Do not leave containers open. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. When using do not eat, drink or smoke. Comply with the health and safety at work laws.

Advice on protection against fire and explosion

Material supports the burning only after evaporation of the watery content.

Storage

Requirements for storage rooms and vessels

Store in cool but frostfree conditions in frostfree containers. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Always keep in containers of same material as the original one.



8.) Expose controls/personal protection

Exposure limit values

N-METHYL-2-PYRROLIDONE

WEL (EH40/2005)

Value	25	ml/m ³	103	mg/m ³
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STEL	75	ml/m ³	309	mg/m ³
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Skin resorption / sensibilisation	Sk			
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2-(2-BUTOXYETHOXY)ETHANOL

2000/39/EC

Value	10	ml/m ³	67,5	mg/m ³
-------	----	-------------------	------	-------------------

STEL	15	ml/m ³	101,2	mg/m ³
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PROPANE-1,2-DIOL

WEL (EH40/2005)

Value	150	ml/m ³	474	mg/m ³
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total vapour and particulates

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 solvent vapour below the OEL, suitable respiratory protection must be worn.

Occupational exposure controls

Respiratory protection

Breathing protection equipment required in inadequately ventilated places and during spraying.

Respiratory filter (gas) : A

Respiratory filter (part): P2

Hand protection

Chemical protection gloves are suitable, which are tested according to EN 374.

Recommendation for protection against components normally found in the products:

For short-term contact (e.g. spray protection) as well as for long-term contact (e.g. cleaning purposes):

Suitable material: LLDPE

Material thickness: 0.06 mm

Penetration time: >480 min.

Protective gloves must always be tested and confirmed with regard to suitability to each specific working environment (e.g. mechanical resistance, product compatibility, antistatic).

Follow the instructions and information from the glove manufacturer in reference to use, storage, care, and frequency of glove exchange.

Protective gloves should be immediately replaced upon being damaged or when showing first signs of wear. Preventive skin protection (skin protective cream) is recommended. Contaminated skin areas should immediately be washed (follow data sheet for skin protection M 042).

Working procedures are to be so arranged that the permanent wearing of gloves will not be necessary.

We recommend to set up a hand protection plan, which is adapted to the needs of the local business. Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG Druck und Papierverarbeitung (528.1, 528.2, 531.X).

Eye protection

Use safety glasses.

**Safety data sheet in accordance with regulation (EC) No 1907/2006**

Trade name: CLEARSHIELD TYPE C SEMI-GLOSS

Status 01.01.2011

Product no.: WBCSGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Skin protection

All parts of the body should be washed after contact. Use re-greasing skin cream.

General protective and hygiene measures

The usual precautionary measures for the handling of chemicals have to be observed.

9.) Physical and chemical properties**General information**

Form	liquid
Colour	milky
Odour	like solvent

Important health, safety and environmental information**Changes in physical state**

Type	Starts to boil	
Value	100	°C
Reference substance	(water)	

Flash point

Value	not applicable
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Ignition temperature

Value	not applicable
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Explosion limits

Remarks	not applicable
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Vapour pressure

Value	23		hPa
Reference temperature	20	°C	
Reference substance	(water)		

Density

Value	1,03		g/cm ³
Reference temperature	20	°C	

Solubility in water

Remarks	mixable
---------	---------

pH value

Value	9	-	10
Reference temperature	20	°C	

Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

10.) Stability and reactivity**Conditions to avoid**

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

Materials to avoid

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

Hazardous decomposition products

When exposed to high temperatures, dangerous decomposition products such as carbon dioxide, carbon monoxide, soot and nitrogen oxides can be produced.



11.) Toxicological information

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated workplace exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

May cause sensitization by skin contact.

Splashes in the eyes may cause mild irritation and cause the eyelids to stick together.

If swallowed, stomach complaints and irritation of the digestive organs may result.

Ingredient N-methyl-2-pyrrolidone may cause harm to the unborn child.

Other information

There are no data available on the preparation itself.

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EEC).

12.) Ecological information

General information / ecology

There are no data available on the preparation itself. Do not empty into waters or drains

13.) Disposal considerations

Product

EWC waste code 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

Dispose of or incinerate in accordance with corresponding regulations.

Uncontaminated packaging

Dispose of only completely emptied containers!

Code of waste pursuant to European Council Directive on waste: 150102 (Waste of packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified - packaging (including separately collected municipal packaging waste) - plastic packaging).

14.) Transport information

Land transport ADR/RID

Label -, -, -
Remarks non-dangerous goods

Marine transport IMDG/GGVSee

Class -
UN number -
EmS -
Label -
Remarks The product does not constitute a hazardous substance in sea transport.

Air transport ICAO/IATA

Class -
Packing group -
UN number -
Label -
Remarks The product does not constitute a hazardous substance in air transport.



15.) Regulatory information

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC directives/GefStoff V

Hazard symbols

Xi Irritant

Hazardous component(s) to be indicated on label

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

R phrases

43 May cause sensitization by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

28.2 After contact with skin, wash immediately with plenty of water and soap.
29 Do not empty into drains.
37/39 Wear suitable gloves and eye/face protection.

16.) Other information

Other information

According to their chemical structure, the applied raw materials do not contain any antimony, arsenic, soluble barium, lead, cadmium, chromium, mercury and selenium.

(METHYLPHENYL)-W-HYDROXY-POLY(OXY(METHYL-1,2-ETHANEDIYL))

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Department issuing safety data sheet

Product safety.



Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: CLEARSHIELD TYPE C SEMI-GLOSS

Status 01.01.2011

Product no.: WBCSGCAN

Version : 2 / GB

Date of printing : 14.01.2011

Contact person

Dipl.-Chem. G. Heller or Dipl.-Ing. U. Voetter.

The instructions are based on today's information and knowledge. The safety data sheet describes products in relation to safety requirements. These instructions do not assure application technological properties of the product.