



Material Safety Data Sheet

Trade name: ClearShield Classic Lite Semi-Gloss

Status: 25/11/2014

Product no.: 3602XX812

Version : 1 / USA

Date of printing : 25/11/2014

1.) Product and Company Identification

Product details

Trade name

ClearShield Classic Lite Semi-Gloss

Identification of the manufacturer / supplier

Address

Marabu North America
2460 A Remount Rd.
North Charleston, SC 29406
Telephone no. (843) 886-0094
Fax no. (843) 886-3701
Information provided Department product safety
by / telephone
E-mail address of PRSI@marabu.de
person responsible
for this SDS

E-mail address of person responsible for this SDS

PRSI@marabu.de

Emergency telephone number

++49-621-60-43333

Use

Water-based protective coating for digital printing; Liquid laminate

2.) Hazards Identification

According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

No need for classification according to GHS criteria for this product.

Label elements

Labelling according to OSHA HCS 2012

The product does not require a hazard warning label in accordance with GHS criteria.

Hazard statements

No specific dangers known, if the regulations/notes for storage and handling are considered.

Emergency overview

No particular hazards known.

Use with local exhaust ventilation.

Wear protective clothing.

Avoid release to the environment.



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3.) Composition / Information on Ingredients

Chemical characterization

Water containing liquid laminate based on polyurethane

Hazardous ingredients

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)

Concentration >= 0,5 < 1 %

Classification (Regulation OSHA HCS 2012)

Skin Sens. 1 H317

Aquatic chronic 2 H411

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Concentration >= 0,25 < 0,5 %

Classification (Regulation OSHA HCS 2012)

Skin Sens. 1 H317

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

[3-(2,3-epoxypropoxy)propyl]diethoxymethylsilane

CAS No. 2897-60-1

Concentration >= 0,1 < 0,25 %

Classification (Regulation OSHA HCS 2012)

Expl. 1.1 H317

Ammonia, anhydrous

CAS No. 7664-41-7

Concentration >= 0,1 < 0,25 %

Classification (Regulation OSHA HCS 2012)

Press. Gas

Aquatic Acute 1 H400

Flam. Gas 2 H221

Skin Corr. 1B H314

Acute Tox. 3 H331

1-Methoxy-2-propanol

CAS No. 107-98-2

Concentration >= 1 < 2,5 %

Classification (Regulation OSHA HCS 2012)

STOT SE 3 H336

Flam. Liq. 3 H226

Triethylamine

CAS No. 121-44-8

Concentration >= 0,5 < 1 %

Classification (Regulation OSHA HCS 2012)



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Skin Corr. 1A	H314
Flam. Liq. 2	H225
Acute Tox. 3	H331
Acute Tox. 3	H311
Acute Tox. 4	H302

4.) First Aid Measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

After inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After skin contact

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

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5.) Fire-Fighting Measures

Suitable extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist, not be used for safety reasons: water jet.

Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); dense black smoke and nitrogen oxides.

Special protective equipment for fire-fighting

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

6.) Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Do not allow to enter drains or waterways. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.



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7.) Handling and Storage

Precautions for safe handling

Advice on safe handling

Avoid skin and eye contact. Avoid inhalation of vapour and spray mist. Smoking, eating and drinking shall be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in accordance with national regulation

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Store between 59°F and 86°F in a dry, well ventilated place. Keep container tightly closed. No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8.) Exposure Controls / Personal Protection

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 permissible exposure limits, suitable respiratory protection must be worn. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Ingredients with occupational exposure limits to be monitored

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)

OSHA PEL (TWA) 8h: Value	Inhalable	1	mg/m ³
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Ammonia, anhydrous

OSHA PEL (TWA): Value	50 ppm	35	mg/m ³
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1-Methoxy-2-propanol

ACGIH (TWA): Value	50 ppm		
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Triethylamine

OSHA PEL (TWA): Value	100ppm	369	mg/m ³
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Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

OSHA PEL (TWA) 8h: Value	Inhalable	1	mg/m ³
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Personal protective equipment

Respiratory protection

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



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the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

For prolonged or repeated handling nitrile rubber gloves with textile undergloves are required.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection

Use safety eyewear designed to protect against splash of liquids. Maintain eye wash fountain and quick-drench facilities in work area.

Skin protection

Personal should wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. 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. Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions.

9.) Physical and Chemical Properties

Information on basic physical and chemical properties

Form	liquid
Colour	milky white
Odour	mild

Odour threshold

Remarks No data available

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point

Value	212	°F
Method	Value taken from the literature	

Flash point

Remarks Not applicable

Evaporation rate (ether = 1) :

Remarks not determined

Flammability

Not applicable

Explosion limits

Remarks not determined

Vapour pressure

Remarks not determined

Vapour density



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Remarks not determined

Density

Remarks not determined

Solubility in water

Remarks miscible

Octanol/water partition coefficient (log Pow)

Remarks Not applicable

Viscosity

Remarks not determined

Explosive properties

evaluation no

Oxidising properties

evaluation None known

VOC content

VOC (EU) 4,55 %

Other information

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

10.) Stability and Reactivity

Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

Chemical stability

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

Possibility of hazardous reactions

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

Conditions to avoid

When exposed to high temperatures may produce hazardous decomposition products.

Incompatible materials

No hazardous reactions when stored and handled according to prescribed instructions.

Hazardous decomposition products

See chapter 5.2 (Firefighting measures - Special hazards arising from the substance or mixture).

11.) Toxicological Information

Information on hazardous ingredients

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)

LD 50 oral rat: >2,000 mg/kg

LD 50 dermal rabbit: > 2,000 mg/kg

LC50 inhalation/rat: >5,800 mg/m³

Skin irritation: Not an irritant. (OECD 404)

Skin sensitization: (Guinea pig) Maximization text: Sensitizer(70% sensitization) (OECD 406)

Carcinogenicity: not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-piperidyl sebacate

LD 50 oral rat: >2,000 mg/kg

LD 50 dermal rabbit: > 2,000 mg/kg

Skin irritation: Minimal irritant



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Skin sensitization: (Guinea pig) Maximization text: Sensitizer(20/20 positive)

Ammonia, anhydrous

LD 50 oral rat: not applicable

LD 50 dermal rabbit: not applicable

LC50 inhalation/rat (4h): 2,000 ppm

Carcinogenicity: not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

[3-(2,3-epoxypropoxy)propyl]diethoxymethylsilane

LD 50 oral rat: >2,000 mg/kg

LD 50 dermal rabbit: > 2,000 mg/kg

Skin irritation: Minimal irritant

Skin sensitization: Guinea pig positive

Carcinogenicity: not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

1-Methoxy-2-propanol

LD 50 oral rat: 6,040 mg/kg

LD 50 dermal rabbit: 12,900 mg/kg

LC 50 (7h) rat: 7,000 ppm

Irritation: Moderately irritating to skin, eyes and respiratory tract

Skin sensitization: non-sensitizing

Carcinogenicity: not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

Triethylamine

LD 50 oral rat: 460 mg/kg

LD 50 dermal rabbit: 420 mg/kg

LC 50 (1h) rat: 3,496 ppm

Toxic Effects: Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of ingestion.

Chronic Effects: The substance is toxic to kidneys and liver.

Carcinogenicity: not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

Other information

There are no data available on the preparation itself.

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

Waste disposal of product

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Container disposal

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14.) Transport Information

Land transport USDOT

Remarks

Not classified as a dangerous good under transport regulations

Marine transport IMDG

Remarks

Not classified as a dangerous good under transport regulations



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Air transport ICAO/IATA

Remarks

Not classified as a dangerous good under transport regulations

15.) Regulatory Information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material

United States Federal Regulations

US. Toxic Substances Control Act All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

OSHA Hazcom Standard Rating: Triethylamine, Ammonia, anhydrous, 1-Methoxy-2-propanol:
Hazardous by definition of Hazard Communication Standard (29CFR 1910.1200)

US. EPA CERCLA Hazardous Substances (40 CFR 302): Reportable Quantity

Components:

Ammonia, anhydrous

SARA Section 311/312 Hazard Categories:

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355):

Components:

Ammonia, anhydrous

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components:

Triethylamine, Ammonia, anhydrous

Clean Water Act (CWA) Section 307 Toxic Pollutants (40 CFR 401.15):

Components:

None

Clean Water Act (CWA) Section 311 Hazardous Substances (40 CFR 116.4):

Components:

None

Clean Air Act (CAA) Section 112 Regulated Toxic Substances And Threshold Quantities For Accidental Release Prevention (40 CFR 68.130 Table 1+2)

None

Clean Air Act (CAA) Section 112 Regulated Flammable Substances And Threshold Quantities For Accidental Release Prevention (40 CFR 68.130 Table 3+4)

None

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

Warning! This product may contain trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity – not added as a part of the formulation but remaining as residuals from the manufacturing process of our raw material suppliers.



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Triethylamine can be found on the following state lists: Massachusetts, Florida, Minnesota, New York, New Jersey, Pennsylvania, Rhode Island

Ammonia, anhydrous can be found on the following state lists: Massachusetts, Florida, Minnesota, New York, New Jersey, Pennsylvania, Rhode Island

1-Methoxy-2-propanol can be found on the following state lists: Florida, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania and Rhode Island.

16.) Other Information

HMIS® rating information

This information is intended solely for the use of individuals trained in the HMIS® system.

HEALTH: 1

FLAMMABILITY: 1

Physical Hazard: 0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe * = Chronic Health Hazard

Department issuing safety data sheet

Product Safety Department.

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.