

SAFETY DATA SHEET

Trade name: DUAL COAT BASE

According to Regulation (EC)
No 1907/2006 and
Regulation (EU) 2020/878

Date of print: 31/03/2021
Date of issue: 05/11/2020
Version: 1.0 / EN

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: DUAL COAT BASE (White and Gray) / PICOTE DUAL COLOUR EPOXY FOR PICOTE BRUSH COATING™

Product code: PICOTE DC1000 E BASE / 2110001005

1.2. Relevant identified uses of the substance or mixture and uses advised against
„A” component (epoxy) of two-component epoxy resin.

1.3. Details of the supplier of the safety data sheet

Producer/Supplier: PICOTE SOLUTIONS OY LTD
Street/POB: PIENTEOLLISUUSTIE 24
Postcode/City/Country: 06450 PORVOO, FINLAND
E-mail address for a competent person responsible for the safety data sheet: richard@picotesolutions.com
Phone: +44 7827 223237

1.4. Emergency telephone number

Regional Medicines and Poisons Information Centre NI, Belfast
Tel.: +44 844 892 0111 (24 hrs)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Hazard classes / categories	Hazard statements
Skin Irrit. 2	H315 Causes skin irritation.
Skin Sens. 1B	H317 May cause an allergic skin reaction.
Eye Irrit. 2	H319 Causes serious eye irritation.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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Precautionary statements:

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P333 + P313 If skin irritation or a rash occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P391 Collect spillage.

Hazard determining component(s) for labelling:

Contains 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane;
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

2.3. Other hazards

The mixture does not meet the persistent (P), bioaccumulative (B) and toxic (T) criteria. The mixture is not PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization: epoxy compounds with not disclosed, inert, non-hazardous filling materials.

Name	EC No. Index No.	CAS No.	REACH Reg. No.	Content (%)	Classification according to 1272/2008 (CLP)	
					Hazard categories ¹	H-phrases ¹
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxy)methylene]] bisoxirane	216-823-5 603-074-00-8	1675-54-3	01-2119456619-26	<70	Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H315 H319 H317 H411
Titanium dioxide	236-675-5 022-006-00-2	13463-67-7	01-2119489379-17	<20	Carc. 2 ²	H332
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	271-846-8 603-103-00-4	68609-97-2	01-2119485289-22	<10	Skin Irrit. 2 Skin Sens. 1	H315 H317

¹ - See Section 16 for the full text of the abbreviations declared above.

² - The Note 10 of the 14th ATP of CLP regulation was applied: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice:

In case of accident or if you feel unwell, seek medical advice immediately. Show the label where possible. Take off immediately all contaminated, soaked clothing. Wash thoroughly (shower or bath). The person concerned must be removed from the danger zone and laid down. He/she should be transported lying down, in a semi-sitting position in case of shortness of

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	breath. He/she should be kept at rest, covered and kept warm. He/she must not be left unattended.
4.1.1. Inhalation:	The affected person should be taken out to fresh air and kept warm and calm. In case of respiratory distress or respiratory arrest give artificial respiration. Call a doctor immediately.
4.1.2. Skin contact:	If substance has got into skin, immediately wash out with plenty of soap and water. In case of skin reaction or irritation, consult a doctor.
4.1.3. Eye contact:	In case of contact with eyes, rinse immediately with plenty of running water for 10 to 15 minutes holding eyelids apart. Consult an eye doctor. Remove contact lenses, if present and easy to do. Continue rinsing. The intact eye must be protected.
4.1.4. Ingestion:	Rinse mouth with plenty of water (only if the person is conscious) and seek medical advice immediately. Do NOT induce vomiting.
Protection of first-aider:	Take care of self-protection.
4.2. Most important symptoms and effects, both acute and delayed	
Irritating to eyes and skin, sensitizing skin.	
4.3. Indication of any immediate medical attention and special treatment needed	
First aid, decontamination, symptomatic treatment.	

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide (CO₂), dry powder, alcohol resistant foam, water spray.

Unsuitable extinguishing media: high volume water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO₂), potentially hazardous substances produced in the fire.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.1.2. For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

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6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

It is recommended that all work processes be controlled so that no vapours or mists/aerosols can be inhaled. Put on appropriate personal protective equipment (see Section 8). Do not get in eyes, on skin or on clothing. Do not swallow. Avoid release to the environment. If local exhaust is not possible or not satisfactory, good ventilation of the entire work area should be provided if possible.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and flame. Keep container closed. Use with adequate ventilation. Avoid exposure to heat, light, and air for prolonged periods of time.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this Section 7 has to be observed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No exposure limit value is known in the EU directives.

DNEL values

2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)] bisoxirane (CAS: 1675-54-3)

Workers: systemic effects, acute exposure, dermal

Limit value: 8.3 mg/kg

Workers: systemic effects, long-term exposure, dermal

Limit value: 8.3 mg/kg

Workers: systemic effects, acute exposure, inhalation

Limit value: 12.3 mg/kg

Workers: systemic effects, long-term exposure, inhalation

Limit value: 12.3 mg/kg

PNEC values

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2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)] bisoxirane (CAS: 1675-54-3)

PNEC freshwater: 0.006 mg/l

PNEC freshwater (intermittent releases): 0.018 mg/l

PNEC freshwater sediment: 0.996 mg/l

PNEC marine water: 0.0006 mg/l

PNEC marine sediment: 0.0996 mg/l

PNEC soil: 0.196 mg/l

PNEC sewage treatment plant: 10 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Provide good ventilation. The application of technical measures and appropriate work procedures shall take precedence over the use of personal protective equipment.

Individual protection measures

Hygiene measures:

Avoid contact with skin, eyes and clothing. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety glasses with side shields (frame goggles, DIN EN 166). The eye shower should be kept ready and its location should be marked.

Skin protection

Hand protection:

Cuffed gloves. Suitable material: PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber), butyl rubber, PVA (polyvinyl alcohol), FKM (fluoroelastomer), NBR (nitrile rubber). Wearing time in case of non-continuous contact (splashes): > 10 min. Only chemical protective gloves with a CE mark and a four-digit control number may be worn when working with chemicals. The breakthrough time and the swelling characteristics of the material must be taken into account. For special use, it is recommended to consult the glove manufacturer for the chemical resistance properties of each protective glove. DIN/EN standards: EN ISO 374.

Body protection:

Protective clothing: according to the standard DIN EN 14605.

Safety footwear: according to the standard DIN EN ISO 20345.

Respiratory protection:

Only wear protective clothing of the correct size, comfortable to wear and clean. No personal respirator is normally required. Wear a respirator only in case of exceeding limit values, insufficient ventilation or unsatisfactory operation of the exhaust fan.

Suitable respirator:

Respiratory protective device with combined filter (EN 14387), filter type: A.

The class of the respirator must be adjusted to the highest concentration of pollutants (gas/vapor/aerosol/particles) that may be generated when working with the product. If the concentration is exceeded, self-contained breathing apparatus (SCBA) must be used. Use only SCBA with a CE mark and a four-digit control number.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- | | |
|---|-----------------------|
| a) Appearance: | liquid |
| b) Color: | white or gray |
| c) Odor: | characteristic |
| d) Melting point/freezing point: | not defined (mixture) |
| e) Boiling point or initial boiling point | 268 °C (at 1013 hPa) |

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and boiling range:	(Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
f) Flammability	ignitable
g) Lower and upper explosion limit:	not applicable (mixture)
h) Flash point:	159 °C
	(Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
i) Autoignition temperature:	not applicable (mixture)
j) Decomposition temperature:	not applicable (mixture)
k) pH:	not measurable, reacts with water
l) Kinematic viscosity:	9500-10500 cps at 25°C
m) Solubility:	slightly soluble in water
n) Partition coefficient n-octanol/water (log value)	not applicable (mixture)
o) Vapor pressure:	0.02 Pa (20 °C)
	(Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)
p) Density and/or relative density:	1,7 kg/dm ³ at room temperature
q) Relative vapor density:	not applicable (mixture)
r) Particle characteristics	not applicable (liquid)

9.2. Other information

No data.

SECTION 10: Stability and reactivity

10.1. Reactivity

Product reacts with amines, amides causing the substance curing, strong mineral acids, bases and strong oxidizing agents.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated. See Section 7.

10.3. Possibility of hazardous reactions

May produce violent reactions with bases and numerous organic substances including alcohols and amines, polymerizing and generating heat.

10.4. Conditions to avoid

Short-term exposure to temperature > 50 °C or long-term exposure at > 30 °C; direct sunlight and humidity.

10.5. Incompatible materials

Strong oxidizing agents, strong mineral acids, bases, amines, amides.

10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological information

No test data is available for the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1. Acute toxicity - oral:

Endpoint	Species	Effective dose	Exposure route
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(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)		
LD50	Rat	> 15000 mg/kg oral
Acute toxicity - dermal:		
<i>Endpoint</i>	<i>Species</i>	<i>Effective dose</i> <i>Exposure route</i>
(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)		
LD50	Rabbit	23000 mg/kg dermal
11.1.2. Irritation/Corrosion		
Irritating to eyes and skin.		
11.1.3. Sensitisation		
May cause sensitization by skin contact because of two irritating components.		
11.1.4. Germ cell mutagenicity		
No components are classified.		
11.1.5. Carcinogenicity		
Titanium dioxide in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$ is classified as Carc. 2 from 9 September 2021, but its liquid mixtures are not.		
11.1.6. Reproductive toxicity		
No components are classified.		
11.1.7. STOT - single exposure		
No components are classified.		
11.1.8. STOT - repeated exposure		
No components are classified.		
11.1.9. Aspiration hazard		
No components are classified.		
11.1.10. Toxicokinetics		
No data.		
11.1.11. Genetic toxicity		
No components are classified.		
11.2. Information on other hazards		
No specific data available.		

SECTION 12: Ecological information

No test data is available for the product.

12.1. Toxicity

Aquatic toxicity to fish:

<i>Endpoint</i>	<i>Species</i>	<i>Effective dose</i>	<i>Exposure</i>
(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)			
LC50	Oncorhynchus mykiss (rainbow trout)	2 mg/l	96 h

Acute aquatic toxicity to crustacea:

<i>Endpoint</i>	<i>Species</i>	<i>Effective dose</i>	<i>Exposure</i>
(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)			
EC50	Daphnia magna (big water flea)	1.8 mg/l	48 h

Chronic aquatic toxicity to crustacea:

<i>Endpoint</i>	<i>Species</i>	<i>Effective dose</i>	<i>Exposure</i>
(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)			
NOEC	Daphnia magna (big water flea)	0.55 mg/l	21 days

Acute aquatic toxicity to algae and cyanobacteria:

<i>Endpoint</i>	<i>Species</i>	<i>Effective dose</i>	<i>Exposure</i>
(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)			
EC50	Selenastrum capricornutum	11 mg/l	72 h

Toxicity to microorganisms:

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Endpoint	Species	Effective dose	Exposure
EC50	(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)	> 42.6 mg/l	8 h

12.2. Persistence and degradability

(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)

Parameter: biodegradability

Duration: 28 days

Degradation rate: 12%

Not readily biodegradable

Method: OECD 302B

12.3. Bioaccumulative potential

(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)

Parameter: bioconcentration factor

Value: 100-3000

Partition coefficient (n-octanol/water): 3.242

12.4. Mobility in soil

(2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)

Potential for mobility in soil is low (Koc = 500-2000)

12.5. Results of PBT and vPvB assessment

The substances do not meet the criteria for PBT or vPvB according to REACH Regulation (EC No 1907/2006), Annex XIII.

12.6. Endocrine disrupting properties

None of the components is assessed as endocrine disruptor.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

(ADR/RID/ADN, IMDG, IATA)

14.1. UN number or ID number

UN3082

14.2. UN proper shipping name

Environmentally hazardous substance, liquid,
n.o.s. (epoxy resin)



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14.3. Transport hazard class(es) 9
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for users

ADR/RID/ADN	IMDG	IATA
Tunnel code: (-)	EmS: (F-A, S-F)	PAX 964; CAO 964

14.7. Maritime transport in bulk according to IMO instruments
Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
The product is covered by the SEVESO III Directive (Directive 2012/18/EU) due to its environmental hazards.
15.2. Chemical safety assessment
Chemical safety assessment has not been carried out for the mixture.

SECTION 16: Other information

The information given corresponds with our actual knowledge and experience. This information is meant to describe our product in view of possible safety requirements. Classification of the mixture is based on the classification of components.

16.1. Indication of changes
This is the first version of the datasheet.
16.2. Abbreviations and acronyms
CAS number: Chemical Abstracts Service number
CLP: Regulation on Classification, Labelling, Packaging
DNEL: Derived No Effect Level
EC: European Commission
EC number: EINECS and ELINCS number
EC50: Half maximal effective concentration
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EU: European Union
Koc: Organic carbon - water partition coefficient (soil adsorption coefficient)
LC50: Lethal concentration, 50%
LD50: Median lethal dose
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Cooperation and Development
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT: Specific Target Organ Toxicity
vPvB: very Persistent and very Bioaccumulative
16.3. Key literature references and sources for data
Safety data sheets, received from the raw materials suppliers.

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16.4. Full text of abbreviations

H-Phrases

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

P-Phrases

P261	Avoid breathing dust/fumes/gas/mist/vapours/spray
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P333 + P313	If skin irritation or a rash occurs: Get medical advice/attention.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P391	Collect spillage.

Hazard classes

Aquatic Chronic	Hazardous to the aquatic environment, chronic
Carc.	Carcinogenicity
Eye Irrit.	Serious eye irritation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization