Safety Data Sheet according to Regulation (EC) No1907/2006

SDS No. : 205009
V004.1

GELCOAT HARDENER 6G

Revision: 27.10.2014
printing date: 02.01.2015

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

1.1. Product identifier
GELCOAT HARDENER 6G

Contains:
Dibenzoyl peroxide

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
hardener component

1.3. Details of the supplier of the safety data sheet
Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Organic peroxides	Type E
	Type F
H242 Heating may cause a fire.	

Classification (DPD):

O - Oxidizing
R7 May cause fire.
Xi - Irritant
R36 Irritating to eyes.
Sensitizing
R43 May cause sensitisation by skin contact.
N - Dangerous for the environment
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Signal word:	Warning
Hazard statement:	H242 Heating may cause a fire. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement: Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. P280 Wear protective gloves.
Precautionary statement: Response	P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

Label elements (DPD):

O - Oxidizing

Xi - Irritant

N - Dangerous for the environment

Risk phrases:
R7 May cause fire.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S2 Keep out of the reach of children.
S3/7 Keep container tightly closed in a cool place.
S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains:
Dibenzoyl peroxide

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:
Hardener

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dibenzoyl peroxide 94-36-0	202-327-6 01-2119511472-50	40- 60 %	Organic peroxides B H241 Serious eye irritation 2 H319 Acute hazards to the aquatic environment 1 H400 Skin sensitizer 1 H317 Chronic hazards to the aquatic environment 2 H411 M factor: 10
Oxydipropyl dibenzoate 27138-31-4	248-258-5 01-2119529241-49	25- 30 %	Chronic hazards to the aquatic environment 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dibenzoyl peroxide 94-36-0	202-327-6 01-2119511472-50	40 - 60 %	E - Explosive; R3 Xi - Irritant; R36 O - Oxidizing; R7 R43 N - Dangerous for the environment; R50
Oxydipropyl dibenzoate 27138-31-4	248-258-5 01-2119529241-49	25 - 30 %	N - Dangerous for the environment; R51/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Immediately wash skin thoroughly with soap and water.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.
Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

EYE: Irritation, conjunctivitis.

SKIN: Rash, Urticaria.

Prolonged or repeated contact may cause skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide, foam, powder

5.2. Special hazards arising from the substance or mixture

Intensifies fire by releasing oxygen.
Oxides of carbon, oxides of nitrogen, irritating organic vapors.

5.3. Advice for firefighters

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition.
Ensure adequate ventilation.
Avoid skin and eye contact.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For large spills absorb onto inert absorbent material and place in sealed container for disposal.
For small spills wipe up with paper towel and place in container for disposal.
Wash spillage site thoroughly with soap and water or detergent solution.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not inhale vapors and fumes.
Avoid skin and eye contact.
Keep away from sources of ignition - no smoking.
Use only in well-ventilated areas.
See advice in section 8
Avoid open flames and sources of ignition.
No smoking.

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from sources of ignition.
Store in a cool, well-ventilated place.

7.3. Specific end use(s)

hardener component

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient	ppm	mg/m³	Type	Category	Remarks
DIBENZOYL PEROXIDE 94-36-0		5	Time Weighted Average (TWA):		EH40 WEL
ZINC DISTEARATE, INHALABLE DUST 557-05-1		20	Short Term Exposure Limit (STEL):		EH40 WEL
ZINC DISTEARATE, INHALABLE DUST 557-05-1		10	Time Weighted Average (TWA):		EH40 WEL
ZINC DISTEARATE, RESPIRABLE DUST 557-05-1		4	Time Weighted Average (TWA):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Dibenzoyl peroxide 94-36-0	aqua (freshwater)					0,602 µg/L	
Dibenzoyl peroxide 94-36-0	aqua (marine water)					0,0602 µg/L	
Dibenzoyl peroxide 94-36-0	aqua (intermittent releases)					0,602 µg/L	
Dibenzoyl peroxide 94-36-0	STP					0,35 mg/L	
Dibenzoyl peroxide 94-36-0	sediment (freshwater)				0,338 mg/kg		
Dibenzoyl peroxide 94-36-0	soil				0,0758 mg/kg		
Dibenzoyl peroxide 94-36-0	oral					6,67 mg/kg food	
Oxydipropyl dibenzoate 27138-31-4	aqua (freshwater)					0,0037 mg/L	
Oxydipropyl dibenzoate 27138-31-4	aqua (marine water)					0,00037 mg/L	
Oxydipropyl dibenzoate 27138-31-4	aqua (intermittent releases)					0,037 mg/L	
Oxydipropyl dibenzoate 27138-31-4	sediment (freshwater)				1,49 mg/kg		
Oxydipropyl dibenzoate 27138-31-4	sediment (marine water)				0,149 mg/kg		
Oxydipropyl dibenzoate 27138-31-4	soil				1 mg/kg		
Oxydipropyl dibenzoate 27138-31-4	STP					10 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Dibenzoyl peroxide 94-36-0	Workers	Inhalation	Long term exposure - systemic effects		11,75 mg/m3	
Dibenzoyl peroxide 94-36-0	Workers	Dermal	Long term exposure - systemic effects		6,6 mg/kg bw/day	
Dibenzoyl peroxide 94-36-0	general population	Inhalation	Long term exposure - systemic effects		2,9 mg/m3	
Dibenzoyl peroxide 94-36-0	general population	Dermal	Long term exposure - systemic effects		3,3 mg/kg bw/day	
Dibenzoyl peroxide 94-36-0	general population	oral	Long term exposure - systemic effects		1,65 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	Workers	Dermal	Acute/short term exposure - systemic effects		170 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	Workers	Inhalation	Acute/short term exposure - systemic effects		35,08 mg/m3	
Oxydipropyl dibenzoate 27138-31-4	Workers	Inhalation	Long term exposure - systemic effects		8,8 mg/m3	
Oxydipropyl dibenzoate 27138-31-4	Workers	Dermal	Long term exposure - systemic effects		10 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	general population	Dermal	Acute/short term exposure - systemic effects		80 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	general population	Inhalation	Acute/short term exposure - systemic effects		8,7 mg/m3	
Oxydipropyl dibenzoate 27138-31-4	general population	oral	Acute/short term exposure - systemic effects		80 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	general population	Dermal	Long term exposure - systemic effects		0,22 mg/kg bw/day	
Oxydipropyl dibenzoate 27138-31-4	general population	Inhalation	Long term exposure - systemic effects		8,69 mg/m3	
Oxydipropyl dibenzoate 27138-31-4	general population	oral	Long term exposure - systemic effects		5 mg/kg bw/day	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.
Avoid naked flames, sparking and sources of ignition.

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.
Dust mask, P1 particle filter.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Avoid eye contact.
Wear protective glasses.
The workplace should be equipped with an emergency shower and eye-rinsing facility.

Skin protection:
Suitable protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste white
Odor	Mild
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 50,0 °C (> 122 °F); Supplier method
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,2 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Partially soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with acids.
Alkali metals
Heavy metals.
Reducing agents.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Heat, flames, sparks and other sources of ignition.
Danger of decomposition if exposed to heat.

10.5. Incompatible materials
See section reactivity

10.6. Hazardous decomposition products
At higher temperatures toxic gases may be generated.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
May cause irritation to the digestive tract.

Inhalative toxicity:
May cause irritation to respiratory system.

Skin irritation:
Prolonged or repeated contact may cause skin irritation.

Eye irritation:
Causes serious eye irritation.

Sensitizing:
May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	LD50	3.914 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	LC50	> 200 mg/l	inhalation	4 h	rat	

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Dibenzoyl peroxide 94-36-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Oxydipropyl dibenzoate 27138-31-4	not sensitising		guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Oxydipropyl dibenzoate 27138-31-4	NOAEL=> 1.000 mg/kg	oral: feed	90 days daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information

General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:

Do not empty into drains / surface water / ground water.
Very toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Dibenzoyl peroxide 94-36-0	LC50	0,06 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Dibenzoyl peroxide 94-36-0	EC50	0,11 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dibenzoyl peroxide 94-36-0	EC50	0,07 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	0,02 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Oxydipropyl dibenzoate 27138-31-4	LC50	3,7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	19,3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	4,9 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Persistence and Biodegradability:
No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Dibenzoyl peroxide 94-36-0	readily biodegradable	aerobic	> 60 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Oxydipropyl dibenzoate 27138-31-4	readily biodegradable	aerobic	87 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
No data available for the product.

Bioaccumulative potential:
No data available for the product.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Dibenzoyl peroxide 94-36-0		66,6		fish		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Dibenzoyl peroxide 94-36-0	3,2				22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Oxydipropyl dibenzoate 27138-31-4	3,9					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

Dibenzoyl peroxide 94-36-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Oxydipropyl dibenzoate 27138-31-4	Not fulfilling PBT (persistent/bioaccummulative/toxic) criteria

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	3108
RID	3108
ADNR	3108
IMDG	3108
IATA	3108

14.2. UN proper shipping name

ADR	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
RID	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
ADNR	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
IMDG	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE) (Dipropylenglycol dibenzoate)
IATA	Organic peroxide type E, solid (Dibenzoyl peroxide)

14.3. Transport hazard class(es)

ADR	5.2
RID	5.2
ADNR	5.2
IMDG	5.2
IATA	5.2 (HEAT)

14.4. Packaging group

ADR	
RID	
ADNR	
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADNR	Environmentally Hazardous
IMDG	Environmentally Hazardous
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (D)
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content (1999/13/EC)	< 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R7 May cause fire.
H241 Heating may cause a fire or explosion.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.