SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : EPOBAR DURCISSEUR/HARDENER
Product code : SPIT - VED 20.4.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Reaction initiator.
For industrial use.

1.3. Details of the supplier of the safety data sheet

Registered company name : SPIT.
Address : 150, route de Lyon.26500.BOURG LES VALENCE.France.
Telephone : 0 810 102 102. Fax : 0 810 432 432.
Email : msds-reach@spit.com
http://www.spit.fr

1.4. Emergency telephone number : 112.

Association/Organisation : European emergency number.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Organic peroxide, Type E (Org. Perox. E, H242).
Eye irritation, Category 2 (Eye Irrit. 2, H319).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS07 GHS09 GHS02

Signal Word :
WARNING
Product identifiers :

EC 202-327-6	DIBENZOYL PEROXIDE

Hazard statements :

H242	Heating may cause a fire.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

Precautionary statements - Prevention :

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep/Store away from clothing/.../combustible materials.
P234	Keep only in original container.
P261	Avoid breathing vapours.
P264	Wash hands thoroughly after handling.

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P302 + P352	IF ON SKIN: Wash with plenty of water/...
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see ... on this label).
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use... to extinguish.
P391	Collect spillage.
Precautionary statements - Storage :	
P403 + P235	Store in a well-ventilated place. Keep cool.
P410	Protect from sunlight.
P411 + P235	Store at temperatures not exceeding 30.00 oC/86.00 oF. Keep cool.
P420	Store away from other materials.
Precautionary statements - Disposal :	
P501	Dispose of contents/container at a disposal facility in accordance with local regulations.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 94-36-0 EC: 202-327-6 REACH: 05-2116407351-59 DIBENZOYL PEROXIDE	GHS07, GHS09, GHS01, GHS02 Dgr Self-react. B, H241 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Acute 1, H400 M Acute = 10	[1]	10 <= x % < 25
CAS: 56-81-5 EC: 200-289-5 GLYCEROL		[1]	10 <= x % < 25
CAS: 7778-18-9 EC: 231-900-3 REACH: 01-2119444918-26 SULFATE DE CALCIUM		[1]	10 <= x % < 25
CAS: 107-21-1 EC: 203-473-3 ETHYLENE GLYCOL	GHS07 Wng Acute Tox. 4, H302	[1]	10 <= x % < 25
CAS: 14808-60-7 EC: 238-878-4 QUARTZ (SIO2)	GHS08 Wng STOT RE 2, H373	[1]	2.5 <= x % < 10

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In the event of inhalation, move patient to the open air. Keep warm and at rest.
If breathing is irregular or has stopped, proceed with artificial respiration and seek medical attention.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.
Watch out for any remaining product between skin and clothing, watches, shoes, etc.
In the event of an allergic reaction, seek medical attention.
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.
In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.
Seek medical attention immediately, showing the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.
In the event of a fire nearby a peroxide storage area, evacuate the warehouse and move the peroxide containers to a safe place.
If this is not possible, the warehouse needs to be sprayed to prevent stock from heating and fire from spreading.

Suitable methods of extinction

In the event of a fire, use :
- water
- carbon dioxide (CO_2)
- powder
- sprayed water or water mist
- foam

In the event of a fire, use water except when fighting a fire caused by sodium peroxide where anhydrous sodium carbonate or dry sand should be used.
Carbon dioxide or dry powder extinguishers can be used if the fire is in its initial phase.
Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :
- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.
Do not breathe in smoke.
In the event of a fire, the following may be formed :
- carbon monoxide (CO)
- carbon dioxide (CO_2)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.
In the event of fire, all personnel handling the fire must wear protective clothing and independent breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.
If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures
Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.
Use an inert, non-combustible substance that will absorb the peroxide : vermiculite, perlite, etc.
Spread the product with water or suitable solvent (ethyl acetate) then absorb the product.

To collect the product, use instruments made of polyethylene or polypropylene, so as not to create a spark.

Do not use combustible cloths or materials.
The residue will be stored in non-combustible containers that are not hermetically sealed.
Clean the contaminated area with water.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.
Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Remove contaminated clothing and protective equipment before entering eating areas.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid skin and eye contact with this mixture.
Handle at a temperature 10°C below the self-accelerating decomposition temperature (SADT).
Do not perform transfer operations under pressure; this could cause the peroxide to heat.
Do not use an external heat source to bring the product to room temperature, to prevent the formation of a hot spot.
The equipment used for handling the product must be made of compatible material, instruments used must therefore be made of stainless steel, non-pigmented polyethylene or polypropylene.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.
Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

See section 10.

Storage

Keep the container tightly closed in a dry place.
Store away from light and heat, since these factors favour peroxidation.
Store in inert atmosphere (e.g. under nitrogen).
Store in clean, unoxidised containers.
Ensure that the container is fully sealed to avoid evaporation of the solvent or product stored, which would cause a concentration of peroxides in the recipient.
The storage area must be indicated by signs bearing the 'Oxidising' symbol and have signs prohibiting smoking.
Store at a temperature between 5 and 30°C.

Packaging

Always keep in packaging made of an identical material to the original.
Only store in original packaging.
If decanting, ensure that the material on the new packaging is compatible with the properties of peroxide.
Make sure there is a ventilation hole in packaging containers, to prevent overpressure. A temperature indicator is also useful.
Suitable packaging materials :
- Aluminium
- Polyethylene

Unsuitable packaging materials :
- Galvanised metals
- Steel
- Copper
- Lead

- Zinc

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2009/161/EU, 2006/15/EC, 2000/39/EC, 98/24/EC)

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
107-21-1	52	20	104	40	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
94-36-0	5 mg/m3	-	-	-	-
56-81-5	10 mg/m3	-	-	-	-
7778-18-9	10 mg/m3	-	-	-	I
107-21-1	-	-	100	-	-
14808-60-7	0.05 mg/m3	-	-	-	R

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME :	VME :	Excess	Notes
94-36-0	-	5 mg/m3 E	1(I)	DFG
7778-18-9	-	6 mg/m3 A	-	DFG
107-21-1	10 ml/m3	26 mg/m3	2(I)	DFG, H, Y

- Belgium (Order of 19/05/2009, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
94-36-0	5 mg/m3	-	-	-	-
56-81-5	10 mg/m3	-	-	-	-
7778-18-9	10 mg/m3	-	-	-	-
107-21-1	-	-	101	-	-
14808-60-7	0.1 mg/m3	-	-	-	-

- France (INRS - ED984 :2012) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
94-36-0	-	5	-	-	-	-
56-81-5	-	10	-	-	-	-
7778-18-9	-	10	-	-	-	-
107-21-1	20	52	40	104	*	84
14808-60-7	-	0.1 A	-	-	-	25

-

- Switzerland (SUVA 2009) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Temps :	RSB :
94-36-0	5i	-	5i	-	15 min	-
56-81-5	50 i	-	100 i	-	4x15	-
107-21-1	26	10	52	20	4x15	R
14808-60-7	0,15 a	-	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
94-36-0	5 mg/m3	-	-	-	-
56-81-5	10 mg/m3	-	-	-	-
107-21-1	10 mg/m3	-	-	-	-
14808-60-7	0.3 mg/m3	-	-	-	R

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.
Use eye protectors designed to protect against liquid splashes
Before handling, wear safety goggles with protective sides accordance with standard EN166.
In the event of high danger, protect the face with a face shield.
Prescription glasses are not considered as protection.
Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.
Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- Natural latex
- PVC (polyvinyl chloride)
Recommended properties :
- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.
Wear suitable protective clothing.
Suitable type of protective clothing :
In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.
In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.
Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :
- A2 (Brown)
- A1 (Brown)
- A3 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Paste.
Colour:	Grey.
Odour:	Characteristic.

Important health, safety and environmental information

pH :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	> 1
Water solubility :	Insoluble.
% VOC :	19

9.2. Other information

SADT:	50°C.
Oxygen content (%):	N/A
Dry residue (%):	N/A

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.
Mixture which neither detonates nor deflagrates and has no reaction, or only a minor reaction, when heated under confinement.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :
- heating
- heat
- flames and hot surfaces

May decompose under the effect of heat.
N/A

10.5. Incompatible materials

Keep away from :
- combustible material

N/A

10.6. Hazardous decomposition products

The thermal decomposition may release/form :
- carbon monoxide (CO)
- carbon dioxide (CO_2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.
May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

ETHYLENE GLYCOL (CAS: 107-21-1)

Oral route :	300 < LD50 <= 2000 mg/kg Species : Rat
Dermal route :	LD50 = 9530 mg/kg Species : Rabbit

DIBENZOYL PEROXIDE (CAS: 94-36-0)

Oral route :	LD50 > 5000 mg/kg Species : Rat
Inhalation route (n/a) :	LC50 > 24.3 mg/l Species : Rat

11.1.2. Mixture

No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 94-36-0 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
CAS 14808-60-7 : IARC Group 1 : The agent is carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Highly toxic to aquatic life.
The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

ETHYLENE GLYCOL (CAS: 107-21-1)

Fish toxicity :	LC50 > 18500 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 74000 mg/l Species : Daphnia magna Duration of exposure : 24 h

SULFATE DE CALCIUM (CAS: 7778-18-9)

Fish toxicity :	LC50 > 960 mg/l Species : Gambusia affinis Duration of exposure : 96 h

DIBENZOYL PEROXIDE (CAS: 94-36-0)

Fish toxicity :	LC50 > 0.0602 mg/l Factor M = 10 Species : Oncorhynchus mykiss Duration of exposure : 96 h
Crustacean toxicity :	EC50 > 0.11 mg/l Factor M = 1 Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 > 0.0711 mg/l Factor M = 10 Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

ETHYLENE GLYCOL (CAS: 107-21-1)

Biodegradability :	Rapidly degradable.

SULFATE DE CALCIUM (CAS: 7778-18-9)

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

DIBENZOYL PEROXIDE (CAS: 94-36-0)

Biodegradability :	Rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

ETHYLENE GLYCOL (CAS: 107-21-1)

Octanol/water partition coefficient :	log Koe < 1

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

3108

14.2. UN proper shipping name

UN3108=ORGANIC PEROXIDE TYPE E, SOLID
(dibenzoyl peroxide)

14.3. Transport hazard class(es)

- Classification :

5.2

14.4. Packing group

-

14.5. Environmental hazards

- Environmentally hazardous material :

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	5.2	P1	-	5.2	-	500 g	122 274	E0	2	D
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ			
	5.2	-	-	500 g	F-J,S-R	122 274	E0			
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	5.2	-	-	570	10 kg	570	25 kg	A20	E0	
	5.2	-	-	Forbidden	Forbidden	-	-	A20	E0	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.
For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

No data available.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=2 Inflammability=3 Instability/Reactivity=4 Specific Risk=OX

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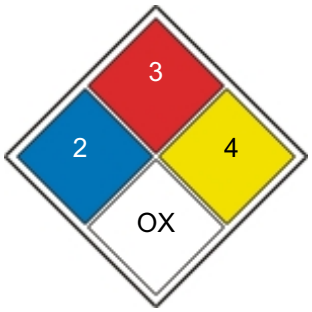

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H241	Heating may cause a fire or explosion.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS02 : Flame
GHS07 : Exclamation mark
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.
N/A

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