Pararapide Catalyst

Product Ref: (DsC49-0516)
Issue No: 02

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name: Pararapide Catalyst

Type of Product: Hardening agent/ Curing agent

1.2. Supplier Details

Langley Waterproofing Systems Limited
Langley House,
Lamport Drive,
Heartlands Business Park,
Daventry,
Northants,
NN11 8YH
Phone: 01327704778
Fax: 01327704845
Email: enquiries@langley.co.uk
Web: www.langley.co.uk

2. SECTION 2: HAZARDS IDENTIFICATION

Hazard-determining components of labelling:
- dibenzoyl peroxide

2.1. Classification

Hazard Statements

H242 Heating may cause a fire.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H361f Suspected of damaging fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. - No smoking.
P234 Keep only in original container.
P220 Keep away from oxidising and acidic substances, as well as heavy metal compounds.
P280 Wear protective clothing / eye protection.
P370+P378 In case of fire: Use of extinction: CO2, powder or water spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235 Store in a well-ventilated place. Keep cool.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008.
The product is classified and labelled according to the CLP regulation.

Pararapide Catalyst

Hazard pictograms

GHS02-Flame

GHS07-Exclamation Mark

GSH09 - environment

Signal word – Danger.

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P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other Hazards

Results of PBT and vPvB assessment

PBT:	**Does not meet the PBT-criteria of Annex XIII of REACH (self assessment).**
vPvB:	**Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).**

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Description:

Mixture of substances listed below with non-hazardous additions.

3.1. Dangerous components:

CAS: 94-36-0 EINECS: 202-327-6 Reg.nr.: 01-2119511472-50	dibenzoyl peroxide Org. Perox. B, H241; Aquatic Acute 1, H400: Aquatic Chronic 1; H410: Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 94-49-5 EINECS: 202-338-6 Reg.nr.: 01-2120759933-41	Ethylene dibenzoate A quatic Chronic 2, H411	25-50%

Additional information: For the wording of the listed risk phrases refer to section 16.

4. SECTION 4: FIRST-AID MEASURES (ACTIONS)

4.1. Description of first aid measures

General information:
Immediately remove any clothing soiled by the product. Take affected persons out of danger area and lay down. Contact a doctor immediately.

After inhalation:
In case of unconsciousness place patient stably in side position for transportation.
Take affected persons into fresh air and keep quiet.
Seek medical treatment.

After skin contact:
Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
Remove contaminated clothing immediately.

After eye contact:
Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:
Do not induce vomiting; call for medical help immediately.

4.2. Most important symptoms and effects

Skin sensitization.
Irritant to skin, eyes and respiratory system.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing agents:
CO_2, sand, extinguishing powder, foam, water spray.

For safety reasons unsuitable extinguishing agents:
Halone, Water with full jet.

5.2. Special hazards arising from the substance or mixture

In the case of decomposition without fire, there is a risk of explosion due to the resulting vapour-air mixture. Caution: reignition may occur. Decomposition under the influence of heat. Do not inhale in case of fire and/or explosion.

At the temperature of self-accelerating decomposition (+55 °C), the product undergoes explosive decomposition.

ATTENTION: Re-ignition possible; the product maintains combustion processes.

In Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Under certain fire conditions, traces of other toxic gases cannot be excluded.

Carbon monoxide (CO) CO_2 Benzoic acid, benzene

5.3. Advice for firefighters

Protective equipment:
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
Wear self-contained respiratory protective device.

Additional information:
Cool endangered receptacles with water spray.
Evacuate all non- essential persons. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe dust.
Keep away from ignition sources.
Avoid static electricity.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.

6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage in to water course or sewage system.

6.3. Methods and material for containment and cleaning up

Do not flush with water or aqueous cleansing agents.
Ensure adequate ventilation.
Collect and place in suitable containers.
Dampen spillage with water.

6.4. Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Not giving remnants back into the storage vessels. Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles. Keep away from heat and direct sunlight.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
Restrict the quantity stored at the work place.
Handle with care. Avoid jolting, friction and impact. Providing good ventilating/suction at work.
At least 7-fold air changes per hour.

Information about fire - and explosion protection:
Highly volatile, flammable constituents are released during processing.
Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.
Dust can combine with air to form an explosive mixture.
Substance/product is oxidising when dry.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:
Store only in the original receptacle.
Prevent any seepage into the ground.
Use only receptacles specifically permitted for this substance/product.
Store in accordance with local and national regulations.
Store in a cool location.

Information about storage in one common storage facility:
Organic peroxides shall not be parked or stored together with heavy metal compounds or amines or their preparations.

Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Max. Storage temperature 30 ° C
Store receptacle in a well ventilated area.
Protect from contamination.
Store in a cool place.
Keep contents moist.
Keep container tightly sealed.

7.3. Specific end use(s) Building coating or sealing.

No further relevant information available.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities:
No further data; see item 7.

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
94-36-0 dibenzoyl peroxide (25-50%)	
WEL (Great Britain)	Long-term value: 5 mg/m³

DNELs		
94-36-0 dibenzoyl peroxide		
Oral	DNEL (population)	1.65 mg/kg bw/day (population)
Dermal	DNEL	11.75 mg/m³ (Employee / Industrial / Commercial) 2.9 mg/m³ (population) 6.6 mg/kg bw/day (Employee / Industrial / Commercial) 3.3 mg/kg bw/day (population)
94-49-5 Ethylene dibenzoate		
Dermal	DNEL (worker)	3 mg/kg bw/day (Long-term oral systemic)
Inhalative	DNEL (worker)	10.6 mg/m³ (Long-term inhalation systemic)
PNECs		
94-36-0 dibenzoyl peroxide		
Oral	PNEC oral	6.67 mg/kg (food)
	PNEC	0.0758 mg/kg (ground) 0.338 mg/kg (sediment) (freshwater) 0.35 mg/l (sewage plant) 0.0000602 mg/l (seawater) 0.000602 mg/l (freshwater)
94-49-5 Ethylene dibenzoate		
Oral	PNEC	0.44 mg/l (ground) 2.23 mg/l (sediment) 0.00073 mg/l (seawater) 0.0073 mg/l (freshwater)

Additional information: The lists valid during the making process were used as basis.

8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Avoid Contact with the eyes and skin.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Use skin protection cream for skin protection.
Keep away from foodstuffs, beverages and feed.
Avoid close or long term contact with the skin.
Avoid contact with the eyes.

Respiratory protection:
In interiors and at transgression of the limiting values breath filtration device: Filter type A1 using an air recycling independent breathing apparatus at high concentrations A2 at an intensive or longer outline.
The use of breath protective hoods can be recommended since no carrying time limits are valid.

Protection of hands:
Preventive skin protection by use of skin-protecting agents is recommended.

Protective gloves:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Check protective gloves prior to each use for their proper condition.

Material of gloves
The selection of the suitable gloves depends not only on the material, but also on further marks of quality and can vary from manufacturer to manufacturer. As the product is a combination of several substances, the resistance of the glove material cannot be calculated in advance and will need to be checked prior to use.
Protective gloves according EN 374.
Suitable material: nitrile.

Penetration time of glove material
This recommendation is mainly on a one-time use as a short-term protection against liquid splashes. For other applications, you should contact a glove manufacturer.
The exact break through time has to be found out by the manufacturer of the protective gloves and must be observed.

For permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable: Neoprene gloves. Nitrile rubber, NBR.

For permanent contact gloves made of the following materials are suitable:
Butyl rubber, BR.

Not suitable are gloves made of the following materials:
Leather gloves.

Eye protection:
Tightly sealed goggles.
EN-Standard: EN 166.

Body protection:
Protective work clothing.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General Information:

Appearance:	Powder
Form:	White
Colour:	Weak, characteristic.
Odour:	Not determined.
Odour threshold:	7.
PH-value at 20°C:	
Change in condition:	
Melting point/Melting range:	58°C (decomposition).
Boiling point/Boiling range:	Not applicable.
Flash point:	N/a
Flammability (solid, gaseous):	
Decomposition temperature:	55°C (SADT)
Auto-ignition temperature:	Decomposition product(s) may be flammable.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Oxidising properties:	Unavailable.
Vapour pressure at:	Not applicable.
Density at 20 °C:	Not determined.
Relative density:	Not determined.
Bulk density:	640 kg/m^3.
Releative density:	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility with water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	log POW 3.2 at 22°C (OECD 107).
Viscosity:	
Dynamic at 20 °C:	Not applicable.
Kinematic:	Not applicable.

10. SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

See Section 10.2.

10.2. Chemical Stability

Thermal decomposition / conditions to be avoided:
ADT - (Self-accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition may occur in the transport packaging. A dangerous self-accelerating decomposition reaction, explosion or fire under unfavorable circumstances, may be caused by thermal decomposition at or above the temperature specified: 55 °C. Contact with incompatible substances may cause decomposition at or below the SADT 55 °C. To avoid thermal decomposition do not overheat. Shock, avoid friction, heat, sparks, static electricity.

10.3. Possibility of hazardous reactions

Reacts with alkali, amines and strong acids.
Reacts with certain metals.

10.4. Conditions to avoid

Shock, avoid friction, heat, sparks, static electricity.

10.5. Incompatible materials:

Avoid contact with rust, iron and copper. Hazardous decomposition on contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents. Do not mix with peroxide accelerators. Only use stainless steel according to DIN 1.4571, PVC, polyethylene, or glass-lined equipment.

Additional information:
Emergency procedures will vary depending on individual circumstances. A contingency plan should be in place.

10.6. Hazardous decomposition products:

In case of fire: see section 5.

Additional information:
Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan to the workplace may be present.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

There were no toxicological effects found during the application.

11.2. Acute toxicity

LD/LC50 values relevant for classification:		
94-36-0 dibenzoyl peroxide		
Oral	LD50	> 2000 mg/kg (mouse)
Inhalative	LD50	> 2000 mg/kg (rat) (dust)

Primary irritant effect:

Skin corrosion/irritation: Irritability.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Subacute to chronic toxicity:		
94-36-0 dibenzoyl peroxide		
Oral	NOAEL	200 mg/kg/d (rat) Adverse effect was observed.
		500 mg/kg/d (unknown) Concentration at which no adverse effect was observed.
	NOAEL/29d	1000 mg/kg/d (unknown) Concentration at which no adverse effect was observed.

94-49-5 Ethylene dibenzoate		
Oral	NOAEL	1000 mg/kg (rat) (OECD 422)

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Suspected of damaging fertility.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

94-49-5 Ethylene dibenzoate	
EC50/3h (static)	>1,280 mg/l (activated sludge) (OECD 209)
	1.4 mg/l (daphnia magna) (OECD 211)
EC50/21d	0.79 mg/l (daphnia magna) (OECD 211)

Aquatic toxicity:	
94-36-0 dibenzoyl peroxide	
EC50	35 mg/l (bacteria) (breath inhibition test for activated sludge)
	0,5 h
EC50/48h	0.11 mg/l (daphnia magna) (OECD-Directive 202)
LC50/96h	0.06 mg/l (fish)
NOEC/72h	0.02 mg/l (OECD 201)
EC50/72h	0.0711 mg/l (OECD 201)
NOEC	0.077 mg/l (daphnia magna) (OECD-Directive 202)
	48 h
	0.0316 mg/l
	(Rainbow trout) OECD 203
	96 h

94-49-5 Ethylene dibenzoate	
LC50/96h (static)	>0.434 mg/l (Danio rerio) (Acute toxicity to fish)
ErC50/72h (static)	>0.87 mg/l (OECD 201)
NOEC/72h (static)	0.045 mg/l (OECD 201)
NOEC/21d (static)	0.65 mg/l (daphnia magna) (OECD 211)
NOEC (static)	0.073 mg/l (Danio rerio) (OECD 210)

12.2. Persistence and degradability

Ethylene glycol dibenzoate

Biodegradability: Type of test: Closed bottle test

Biological degradation: 81 % Exposure time: 28 d

Method: OECD test guideline 301D GLP: yes

Easily biodegradable.

Dibenzoyl peroxide

Biodegradability: Result: Potentially biodegradable

12.3. Bioaccumulative potential

Dibenzoyl peroxide:
Partition coefficient: n-octanol/water: log Pow: 3.2 (20 °C)

12.4. Mobility in soil

Dibenzoyl peroxide: **log Koc: 6310 (22 °C)**

Ecotoxical effects:

Remark:

Very toxic to aquatic organisms. V ery toxic for fish.

12.5. Additional ecological information

General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

12.6. Results of PBT and vPvB assessment

PBT: Does not meet the PBT-criteria of Annex XIII of REACH (self assessment).
vPvB: Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).

12.7. Other adverse effects

No further relevant information available.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Hazardous waste according to Waste Catalogue (EWC).
If recycling is not possible, waste must be in compliance with local regulations to be removed.

Recommendation

Must not be disposed together with household garbage.
Do not allow product to reach sewage system. Must be specially treated adhering to official regulations.

European waste catalogue	
16 00 00	Wastes not otherwise specified in the list
16 00 00	Oxidising substances
16 09 03	Peroxides, for example hydrogen peroxide

Uncleaned packaging:

Recommendation:
Packaging must be emptied of all residues and must be disposed of properly in accordance with the statutory provisions.
Packaging that has not been completely emptied must be disposed of in coordination with the regional disposal company.
Disposal must be made according to official regulations.

14. SECTION 14: TRANSPORT INFORMATION

14.1. UN-Number

ADR, IMDG, IATA: UN3106

14.2. UN proper shipping name

ADR: 3106 ORGANIC PEROXIDE TYPE D, SOLID

IMDG: ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT

IATA: ORGANIC PEROXIDE TYPE D, SOLID

14.3. Transport hazard class

ADR:

Class: 5.2 (P1) Organic peroxides.
Label: 5.2

IMDG:

Class: 5.2 Organic peroxides.
Label: 5.2

IATA:

Class: 5.2 Organic peroxides.
Label: 5.2

14.4. Packing group

ADR, IMDG, IATA: V oid

14.5. Environmental hazards

Marine pollutant: Yes
Symbol (fish and tree)

Special marking (ADR)	Symbol (fish and tree)

14.6. Special precautions for user

Warning:	Organic peroxides.
Hazard identification number (Kemler code):	539
EMS Number:	F-J, S-R
Stowage Category:	D
Stowage Code:	SW1 Protected from sources of heat
Segregation Code:	SG35 Stow “separated from” SGG1-acids. SG36 Stow “separated from” SGG18-alkalis. SG72 See 7.2.6.3.2.

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

Not applicable.

14.8. Transport/Additional information

ADR:

Limited quantities (LQ)	500 g
Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D

IMDG:

Limited quantities (LQ):	500 g
Excepted quantities (EQ):	Code: E0 Not permitted as Excepted Quantity
UN Model Regulation:	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2

15. SECTION 15: REGULATORY INFORMATION

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I: None of the ingredients is listed.
Seveso category
P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES E1 Hazardous to the Aquatic Environment
Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

National regulations:
Information about limitation of use:
Employment restrictions under the Maternity Protection Directive (94/33/EC).
Employment restrictions for maternity Directive (92/85/EEC) for expectant and nursing mothers.

15.2. Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. SECTION 16: OTHER INFORMATION

This information relates to the product as delivered.

Sector of Use:
Relevant identified uses of the mixture.
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites.
SU19 Building and construction work.
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen).

Uses advised against:
SU21 Consumer uses: Private households / general public / consumers.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:
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.

Training hints:
Instruction must take place before the start of employment and at least annually thereafter.

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Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).
ICAO: International Civil Aviation Organisation.
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
GHS: Globally Harmonised System of Classification and Labelling of Chemicals.
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
VOC: Volatile Organic Compounds (USA, EU).
DNEL: Derived No-Effect Level (REACH).
PNEC: Predicted No-Effect Concentration (REACH).
LC50: Lethal concentration, 50 percent.
LD50: Lethal dose, 50 percent.
PBT: Persistent, Bioaccumulative and Toxic.
vPvB: very Persistent and very Bioaccumulative.
Flam. Liq. 2: Flammable liquids, Hazard Category 2.
Flam. Liq. 3: Flammable liquids, Hazard Category 3.
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2.
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2.
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1.
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3.
Asp. Tox. 1: Aspiration hazard, Hazard Category 1.
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2.
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3.