Product	Polyurethane Floor Enamel
Revision date	20 November 2020
Revision	1

Safety Data Sheet (SDS)

according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Product name **Polyurethane Floor Enamel**
Other means of identification No information available.

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

Identified uses A single pack solvent borne floor paint based on a urethane alkyd resin.
For Industrial, professional and consumer use.
Uses advised against Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier
Castle Paints Ltd
Cloncollig Industrial Estate
Tullamore
Offaly
R35 X993
Ireland
Tel: 353 (0)579351583
Contact person info@castlepaints.ie

1.4 Emergency telephone number

Emergency telephone Emergency medical information: 8am - 10pm (Seven Days) contact National Poison Center,Beaumont Hospital. Telephone: +353 (0) 18092166

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and chemical hazards	Flam. Liq 3- H226
Human health	STOT SE 3 - H336
Environment	Not classified

2.2 Label elements

Contains Not applicable

Label in accordance with (EC) no. 1272/2008

Signal word Warning

Hazard statements H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

Precautionary statements **Prevention**
P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
P261 Avoid breathing dust/fume/ gas/mist/vapours/spray.
P280 Wear protective gloves/ protective clothing/eye protection/face protection.

Response
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P370 + P378 In case of fire: Use water fog, foam, dry chemical or carbon dioxide for extinction.
Storage
P403 + P235 Store in a well-ventilated place. Keep cool.

EUH statements

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains Cobalt bis(2-ethylhexanoate) and butanone oxime. May produce an allergic reaction.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Regulation (EC) No 1272/2008	%
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	CAS-No.: EC No.: 919-857-5 REACH Reg No.: 01-2119463258-33-XXXX	Asp. Tox - H304, Flam. Liq 3- H226, STOT SE 3 - H336	40-60%
titanium dioxide	CAS-No.: 13463-67-7 EC No.: 236-675-5 REACH Reg No.: 01-2119489379-17-0046		1-5%
2-ethylhexanoic acid, zirconium salt	CAS-No.: 22464-99-9 EC No.: 245-018-1	Repr. 2 - H361d	0.1-0.9%
butanone oxime	CAS-No.: 96-29-7 EC No.: 202-496-6 REACH Reg No.: 01-2119539477-28-XXXX	Acute Tox 4 - H312, Eye Dam. 1 - H318, Skin. Sens 1 - H317, Carc. 2 - H351	0.1-0.9%
Cobalt bis(2-ethylhexanoate)	CAS-No.: 136-52-7 EC No.: 205-250-6 REACH Reg No.: 01-2119524678-29-XXXX	Eye Irrit.2A - H319, Skin. Sens 1 A- H317, Repr. 1B- H360, Aquatic Acute 1 - H400, Aquatic Chronic 3 - H412	0.1-0.9%
calcium carbonate	CAS-No.: 471-34-1 EC No.: 207-439-9 REACH Reg No.: 01-2119486795-18-XXXX		0.1-0.9%
Quartz (SiO2)	CAS-No.: 14808-60-7 EC No.: 238-878-4		0.01-0.09%
propionic acid	CAS-No.: 79-09-4 EC No.: 201-176-3 REACH Reg No.: 01-2119486971-24-XXXX	Skin Corr. 1B - H314	0.001-0.009%

The full text for all hazard statements are displayed in section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

General information

Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue.

Inhalation

If this product is inhaled and symptoms occur, move the exposed person to fresh air promptly. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention. Move injured person into fresh air and keep person calm under

	observation. If necessary, seek hospital and bring these instructions. Seek medical advice (show the label where possible).
Ingestion	Do not induce vomiting. Immediately rinse mouth and drink plenty of water. If person becomes uncomfortable or if ingested in large amounts seek medical advice and bring these instructions. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head low and/or keep airway clear.
Skin contact	If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes. Remove contaminated clothing. Get medical attention promptly if symptoms occur after washing.
Eye contact	Do not rub eye. Avoid contaminating unaffected eye. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses if present and easy to do so. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. May cause allergic skin reaction.
Inhalation	Vapors may cause drowsiness and dizziness. Can cause central nervous system (CNS) depression.
Ingestion	Ingestion may cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Skin contact	May cause an allergic skin reaction. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause irritation of eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician	Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Immediate effects can be expected after short-term exposure.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media	Foam, dry powder, carbon dioxide (CO2), water spray. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	May produce hazardous combustion products such as carbon monoxide, carbon dioxide and unknown hydrocarbons.
Unusual fire & explosion hazards	Flammable liquid and vapor. In a fire, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Specific hazards	Vapours may be ignited by a spark, a hot surface or an ember.

5.3 Advice for firefighters

Special fire fighting procedures	Keep up-wind to avoid fumes. Avoid breathing fire vapours. Ventilate closed spaces before entering them. If possible, fight fire from protected position. Containers close to fire should be removed immediately or cooled with water if safe to do so.
Protective equipment for firefighters	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

For non-emergency personnel	Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Eliminate all sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. If necessary evacuate surrounding areas. Read and follow manufacturer's recommendations. If outside do not

	approach from downwind, keep bystanders upwind and away from any danger point.
For emergency responders	Follow safe handling advice and personal protective equipment recommendations for normal use of product.

6.2 Environmental precautions

Environmental precautions	Do not discharge into drains, water courses or onto the ground. Prevent material from entering sewers, waterways, or low areas.

6.3 Methods and material for containment and cleaning up

Spill clean up methods	Ventilate and evacuate the area. Eliminate all sources of ignition. Wear necessary protective equipment. Stop leak if possible without risk. Cover drains. Use non sparking tools or equipment for clean up. Absorb spillage with non-combustible, absorbent material - sand. In case of a large scale of spill, dyke area with sand to stop the spill spreading. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. Flush with plenty of water to clean spillage area.

6.4 Reference to other sections

Reference to other sections	See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling	Use proper personal protection when handling (refer to Section 8). Keep away from heat, sparks and open flame. Provide good ventilation. Avoid inhalation of vapours and contact with skin and eyes. Avoid prolonged or repeated contact. Do not wear contact lenses. Do not mix with other chemicals. Do not eat, drink or smoke when using the product. Ground equipment and use explosion-proof electrical equipment. Read and follow manufacturer's recommendations.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions	Keep away from heat, sparks and open flame. Avoid contact with oxidising agents. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep locked up and out of reach of children.
Storage class	Flammable liquid storage.

7.3 Specific end use(s)

Specific end use(s)	The identified uses are in section 1 of this Safety Data Sheet.
Usage description	Use only according to directions.

Section 8: Exposure controls/Personal protection

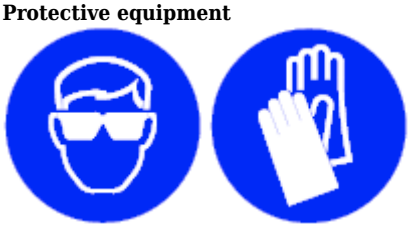
8.1 Control parameters

Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
titanium dioxide	OEL		10 mg/m^3			Total inhalable dust.
titanium dioxide	OEL		4 mg/m^3			Respirable dust.
butanone oxime	OEL	3 ppm	10 mg/m^3	10 ppm	33 mg/m^3	Sens.
calcium carbonate	OEL		10 mg/m^3			Total inhalable dust.
calcium carbonate	OEL		4 mg/m^3			Respirable dust.
Quartz (SiO2)	OEL		0.1 mg/m^3			Respirable dust, BOELV.
propionic acid	OEL	10 ppm	31 mg/m^3	20 ppm	62 mg/m^3	IOELV.

Ingredient comments	Ireland, Occupational Exposure Limits 2020.

8.2 Exposure Controls

Protective equipment



Engineering measures	Provide adequate ventilation, including appropriate local extraction. Where necessary use lighting and electrical equipment designed for use in atmospheres where flammable vapours are present, and which can direct static electricity by grounding equipment.
Respiratory equipment	Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN143, and suitable respirator cartridges as a backup to engineering controls. Type A/organic vapour protective components recommended. ABEK (EN 14387). If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as CEN (EU).
Hand protection	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. (EU Directive 89/686/EEC). Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Gloves must be inspected prior to use. Recommended: > 8 hours (breakthrough time): neoprene (0.65mm) or nitrile rubber (0.5mm) gloves. Consult manufacturer for specific advice. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Eye protection	Wear safety goggles or face shield to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).
Other protection	Wear appropriate clothing to prevent any possibility of skin contact. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist.
Hygiene measures	DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated.
Process conditions	Use only according to directions. Ensure that eye flushing systems and safety showers are located close by in the work place.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Various.
Odour	Slight Hydrocarbon.
Odour threshold - lower	No information available as testing has not been completed.
Odour threshold - upper	No information available as testing has not been completed.
pH-Value, Conc. Solution	9.0 - 9.5
pH-Value, Diluted solution	No information available as testing has not been completed.
Melting point	No information available as testing has not been completed.
Initial boiling point and boiling range	>35°C
Flash point	23.00 - 60.00 °C
Evaporation rate	No information available as testing has not been completed.
Flammability state	Flammable liquid and vapour.
Flammability limit - lower(%)	No information available as testing has not been completed.

Flammability limit - upper(%)	No information available as testing has not been completed.
Vapour pressure	No information available as testing has not been completed.
Vapour density (air=1)	No information available as testing has not been completed.
Relative density	1.3g/cm^3 @ 20.00 °C
Bulk density	No information available as testing has not been completed.
Solubility	No information available as testing has not been completed.
Decomposition temperature	No information available as testing has not been completed.
Partition coefficient; n-Octanol/Water	No information available as testing has not been completed.
Auto ignition temperature (°C)	No information available as testing has not been completed.
Viscosity	Dynamic viscosity @ 20 °C: 1000 cP. Kinematic viscosity @ 40 °C:>20.5 mm^2/s.
Explosive properties	Not classified as explosive.
Oxidising properties	The product does not meet the criteria to be classified as oxidising.

9.2 Other information

Molecular weight	The product is a mixture, molecular weight data is not required.
Volatile organic compound	EU limit value is 500 g/l (Cat.A/j) (2010). Product contains max. 490 g/l.
Other information	None noted.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity	Stable under recommended transport and storage conditions and under recommended use. See section 10.3 for further information.

10.2 Chemical stability

Stability	Stable product under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	Vapours may form explosive mixture with air. Flammable liquid and vapour.
Hazardous polymerisation	Will not polymerise.
Polymerisation description	Unknown.

10.4 Conditions to Avoid

Conditions to avoid	Heat, sparks, flames and other sources of ignition.

10.5 Incompatible materials

Materials to avoid	Avoid strong oxidising agents, bases, strong acids. Do not mix with other chemicals unless listed on directions.

10.6 Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicological information Not classified based on available information.

Acute toxicity (Oral LD50) No information available as testing has not been completed.
Acute toxicity (Dermal LD50) No information available as testing has not been completed.
Acute toxicity (Inhalation LD50) No information available as testing has not been completed.

Serious eye damage/irritation Product is not classified as an eye irritant.

Skin corrosion/irritation The product is not classified as a skin corrosion/irritation hazard.

Respiratory sensitisation The product is not classified as a respiratory hazard.
Skin sensitisation The product is not classified as a skin sensitisation hazard.

Germ cell mutagenicity The product is not classified as a mutagen.

Carcinogenicity The product is not classified as a carcinogen hazard.

Specific target organ toxicity - Single exposure:
STOT - Single exposure The product is classified as a single exposure specific target organ toxin.
Specific target organ toxicity - Repeated exposure:
STOT - Repeated exposure The product is not classified as a repeat exposure specific target organ toxin.

Inhalation Vapors may cause drowsiness and dizziness. Can cause central nervous system (CNS) depression.
Ingestion Ingestion may cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Skin contact May cause an allergic skin reaction. Prolonged contact may cause redness, irritation and dry skin.
Eye contact May cause irritation of eyes.
Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Routes of entry Eye or skin contact, ingestion or inhalation.
Target organs Central nervous system. Eyes, skin, digestive system, respiratory system.

Aspiration hazards: The product is not classified as an aspiration hazard.
Reproductive toxicity: The product is not classified as a reproductive hazard.

Name	LD50 oral	LD50 dermal	LD50 inhalation
Quartz (SiO2)	>5000.00mg/kg Rat		
propionic acid	2600.00mg/kg Rat	525.00mg/kg Rabbit	>4.90g/m3 Rat 4 Hours
2-ethylhexanoic acid, zirconium salt	>5.00g/kg Rat	>5.00g/kg Rabbit	
butanone oxime	2326.00mg/kg Rat	1000.00mg/kg Rabbit	>4.80mg/l (vapours) Rat 4 Hours

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish No information available as testing has not been completed.
Acute toxicity - Aquatic invertebrates No information available as testing has not been completed.
Acute toxicity - Aquatic plants No information available as testing has not been completed.
Acute toxicity - Microorganisms No information available as testing has not been completed.
Chronic toxicity - Fish No information available as testing has not been completed.
Chronic toxicity - Aquatic invertebrates No information available as testing has not been completed.
Chronic toxicity - Aquatic plants No information available as testing has not been completed.
Chronic toxicity - Microorganisms No information available as testing has not been completed.
Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Eco toxilogical information No ecological toxicity available on the overall finished product.

12.2 Persistence and degradability

Degradability No information available as testing has not been completed.
Biological oxygen demand No information available as testing has not been completed.

Chemical oxygen demand No information available as testing has not been completed.

12.3 Bioaccumulative potential

Bioaccumulative potential No information available as testing has not been completed.
Bioaccumulation factor No information available as testing has not been completed.
Partition coefficient; n-Octanol/Water No information available as testing has not been completed.

12.4 Mobility in soil

Mobility Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The product does not contain any PBT or vPvB Substances.

12.6 Other adverse effects

Other adverse effects No information available.

Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	96 Hours >1000.00 Onchorhynchus mykiss (Rainbow Trout)LC50 96 Hours >1000.00ppm Freshwater FishLC50 96 Hours >100.00ppm Freshwater Fish	48 Hours 1000.00mg/l Daphnia magnaEC50 48 Hours >1000.00ppm Daphnia magnaLC50 48 Hours >100.00mg/l Daphnia magna	>1000.00mg/l Scenedesmus Subspicatus 100.00mg/l Scenedesmus Subspicatus
Quartz (SiO2)	>500.00mg/l Onchorhynchus mykiss (Rainbow Trout)	48 Hours >300.00mg/l Daphnia magna	
propionic acid	LC50 96 Hours 51.00ppm Onchorhynchus mykiss (Rainbow Trout)	EC50 48 Hours 22.70ppm Daphnia magna	
butanone oxime	LC50 96 Hours 48.00mg/l Freshwater Fish	LC50 48 Hours 750.00mg/l Daphnia magna	

Section 13: Disposal considerations

Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1 Waste treatment methods

Disposal methods Dispose of waste and residues in accordance with local authority requirements. For waste disposal, use a licensed industrial waste disposal agent.

Section 14: Transport information

14.1 UN number

UN no. (ADR) UN1263
UN no. (IMDG) UN1263
UN no. (IATA) UN1263

14.2 UN proper shipping name

ADR proper shipping name PAINT
IMDG proper shipping name PAINT
IATA proper shipping name PAINT

14.3 Transport hazard class(es)

ADR class 3
IMDG class 3
IATA class 3

Transport labels

14.4 Packing group

ADR/RID/ADN packing group	III
IMDG packing group	III
IATA packing group	III

14.5 Environmental hazards

ADR	No
IMDG	No
IATA	No

14.6 Special precautions for user

EMS	F-E, S-E
Emergency action code	A3 A72 A192
Hazard no. (ADR)	30
Tunnel restriction code	(D/E)

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information

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

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 830/2015 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Approved code of practice	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
Chemical safety assessment	No chemical safety assessment has been carried out.

Section 16: Other information

General information	This Safety Data Sheet is in accordance with REACH Annex II, (EC) No 830/2015.
Revision comments	This is a first issue.
Revision date	20 November 2020
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child .
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H351	Suspected of causing cancer .
H319	Causes serious eye irritation.

H360	May damage fertility or the unborn child .
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H314	Causes severe skin burns and eye damage.
EUH208	Contains Cobalt bis(2-ethylhexanoate) and butanone oxime. May produce an allergic reaction.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use. 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.