

Material Safety Data Sheet (MSDS) - GRP Roof 1010 Catalyst

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product identifier

Trade Name: GRP Roof 1010 Catalyst

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

Recommended Use: Liquid peroxide catalyst for use with GRP Roof system

1.3. Details of the supplier of the safety data sheet

Res-Tec Limited
Unit 25
Castle Park Industrial Estate
Flint
Flintshire
CH6 5XA
Tel: +44 (0) 845 4504 193
Email enquiries@res-tec.co.uk

1.4. Emergency telephone number

+44 (0) 845 4504 193

2. Hazards Identification

2.1. Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Danger

H242
H302
H314
H332

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: C - Corrosive
O - Oxidising
R02
R07
R22
R34

See Section 16 for the full text of the R-phrases declared above.

2.2. Label elements

Hazard Pictograms :



Signal word: DANGER

Hazard Statements

H242	Heating may cause a fire
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled

Precautionary Statements

P210	Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
P220d	Keep away from dirt, rust, chemicals in particular.
P234	Keep in original container.
P260e	Do not breathe vapours.
P264a	Wash hands and contaminated skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280d	Wear protective gloves, eye/face protection, and protective clothing.
P301+P361+P331	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P303+ P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P378d	Use waterspray, foam, sand, dry chemical powder, or CO2 for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P410	Protect from sunlight.
P501a	Dispose of contents and container according to local regulation.

3. Composition and Information on Ingredients

Ingredient Name	Concentration	R Phrases	H Phrases
Dimethyl phthalate CAS: 131-11-3	55%-70%	N/A	N/A
Methyl ethyl ketone peroxide CAS: 1338-23-4	30% - 37%	C + E R2 R7 R22 R34	H240 H302 H312 H314 H331
Methyl ethyl ketone CAS: 78-93-3	1% - 5%	F + Xi R11 R36 R66 R67	H225 H319 H336

Refer to Section 16 for additional wording.

4. First Aid Measures

4.1. Description of first aid measures

Eye Contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses if easy to do. Continue to rinse for at least 15 minutes. Get medical attention immediately.⁷

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention immediately.

Skin Contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Stop if the exposed person feels sick as vomiting may be dangerous. **Do not induce vomiting.** If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of First Aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

Harmful if swallowed.

Causes burns.

Causes injury to the cornea and eyelids.

Risk of serious damage to the eyes.

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

Persons with pre-existing skin, respiratory, and/or central nervous system disease may be at increased risk if exposed to this material. This material is severely corrosive to the eyes and may cause delayed keratitis. The normally prescribed 15 minute eye irrigation after exposure may be difficult because of the severe pain. The prior installation of a topical ocular anaesthetic is essential to facilitate a comprehensive ocular lavage. If swallowed, do not induce vomiting. Give patient plenty of water to drink. Ingestion of this corrosive material may result in severe ulceration, inflammation, and possible perforation of the upper alimentary tract, with haemorrhage and fluid loss. Aspiration of this material during induced emesis can result in severe lung injury. Contact a Poison Control Centre for additional treatment information. Treat any additional effects symptomatically.

5. Fire Fighting Measures

5.1. Extinguishing media

Suitable extinguishing agents:

Water spray.

Alcohol resistand foam.

Sand

Dry chemical powder

CO₂

For safety reasons unsuitable extinguishing agents:

Halones.

5.2. Special hazards arising from the substance or mixture

Oxidiser – heating may cause fire.

Hazardous combustion products.

Carbon Monoxide, Carbon Dioxide, Acetic acid, Formic acid, Propanoic acid, Methyl ethyl ketone.

5.3. Advice for firefighters

Protective equipment:

Wear breathing apparatus.

Do not inhale explosion gases or combustion gases.

6. Accidental Release Measures

6.1. Personal precautions protective equipment and emergency procedures

Do not breathe fumes/vapour.

Avoid contact with skin and eyes.

For personal protection see Section 8.

6.2. Environmental precautions

Do not allow product to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

Stop leakage if possible. Eliminate all sources of ignition, and do not generate flames or sparks. Transfer remaining product from leaking container to a clean and suitable container. Cover the remainder with inert absorbent (e.g. vermiculite) for disposal. Keep contents moist. The waste should NOT be confined. Flush surroundings with large amounts of water. Dispose of contaminated material as waste according to item 13.

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 information on disposal.

7. Handling and Storage

7.1. Precautions for safe handling

Protective Measures:

Never weigh out in the storage room. When using do not eat, drink or smoke. Do not pipet by mouth. Do not breathe fumes/vapour. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Keep away from reducing agents (e.g. amines), acids, alkalis and heavy metal compounds (e.g. accelerators, driers, metal soaps). Keep product and emptied container away from heat and sources of ignition. Confinement must be avoided. Avoid contact with skin and eyes. Avoid Incompatible materials (See Section 10).

Advice on General Occupational Hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including incompatibilities

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store in accordance with local/national regulations.

Keep away from food, drink and animal feeding stuffs.

Store in a dry well ventilated place away from sources of heat and direct sunlight.

Store separate from other chemicals.

Keep only in the original container.

Keep container upright to prevent leakage.

Store below 25°C for maximum quality.

8. Exposure Controls / Personal Protection

8.1. Control parameters

Components with critical values that require monitoring at the workplace:

131-11-3 Dimethyl phthalate

WEL Short-term value: 10 mg/m³
Long-term value: 5 mg/m³

1338-23-4 Methyl ethyl ketone peroxide

WEL Short term value: 1.5 mg/m³

78-93-3 Methyl ethyl ketone

WEL Short term value: 300 ppm =, 899 mg/ m³
Long term value: 200 ppm, 600 mg/ m³

8.2. Exposure controls

Engineering Measures

Ensure good ventilation

Personal Protective Equipment

General protective and hygienic measures:

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Breathing equipment:
Use breathing protection in case of insufficient ventilation.

Protection of hands:
Suitable chemical resistant protective gloves e.g. Viton®, neoprene, nitrile rubber. Consult glove manufacturer on suitability

Eye protection:
Safety glasses or goggles

Body protection:
Protective Work Clothing

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Form:	Liquid
Colour:	Colourless clear
Odour:	Faint
Odour threshold:	Not determined.
pH-value:	Slightly acidic

Change in Condition

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	Not applicable (decomposes)
Flash point:	Above the SADT values
Inflammability (solid, gaseous):	Not applicable
Auto-ignition temperature:	Test method not applicable
Decomposition temperature:	Not determined
SADT:	60°C
Danger of explosion:	No
Critical values for explosion:	Not determined
Active oxygen content:	8.8 – 9.0%
Peroxide content:	30 – 37%
Vapour pressure at 20°C:	0.10 kPa (84°C)
Density:	1.18 g/cm ³ (20°C)
Vapour density:	Not determined
Solubility in/Miscibility with Water:	Partly miscible
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	24mPas @ 25°C
Volatile:	5%

10. Stability and Reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the following temperature: 60 °C. Contact with incompatible substances can cause decomposition at or below the SADT 60 °C.

10.3. Possibility of hazardous reactions

Polymerization does not occur.

10.4. Conditions to avoid

To maintain quality store in original closed container below: 25 °C.
Avoid shock and friction. Confinement must be avoided.

10.5. Incompatible materials

Avoid contact with rust, iron and Copper. Contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents will result in hazardous decomposition. Do not mix with peroxide accelerators. Use only Stainless steel 316, PP, polyethylene or glass-lined equipment.

10.6. Hazardous decomposition products

Acetic acid, Formic acid, propanoic acid, methyl ethyl ketone.

11. Toxicological Data

11.1. Information on toxicological effects

Acute Oral Toxicity:

Dimethyl phthalate

LD50 - >2400 mg/kg (rat)

Methyl ethyl ketone peroxide

LD50 - 1017 mg/kg (rat)

Methyl ethyl ketone

LD50 – 2737 mg/kg (rat)

Acute Dermal Toxicity:

Dimethyl phthalate

LD50 - >10000 mg/kg (rabbit)

Methyl ethyl ketone peroxide

LD50 - 4000 mg/kg (rat)

Methyl ethyl ketone

LD50 – 6480 mg/kg (rabbit)

Acute Inhalation Toxicity: (Duration 4 hours)

Dimethyl phthalate

LC50 - 9300 mg/kg (rat) (6.5 hrs)

Methyl ethyl ketone peroxide

LC50 - 17 mg/kg (rat) (4 hrs)

Methyl ethyl ketone

LC50 – 23.5 mg/kg (rat)

12. Ecological Data

12.1. Toxicity

Aquatic Toxicity:

Dimethyl phthalate

LC50 - 420ppm (fish – lepomis macrochirus) (96 hrs)

IC50 – 39.8 mg/l (algae – selenastrun capricornutum) (96 hrs)

Methyl ethyl ketone peroxide

LC50 – 44.2 mg/l (Fish – poecilia reticulata) (96 hrs)

EC50 – 48.0 mg/l (Activated sludge respiration inhibition level)

Methyl ethyl ketone

LC50 – 3.22 mg/l (fish – lepomis macrochirus) (96 hrs)

12.2. Persistence and degradability

Dimethyl phthalate

Readily biodegradable

Methyl ethyl ketone peroxide

Readily biodegradable

Methyl ethyl ketone

Readily biodegradable

12.3. Bioaccumulative potential

Dimethyl phthalate

BCF fish – 5.4 (24 hrs)

13. Disposal Considerations

13.1. Waste treatment methods

Due to the high risk of contamination recycling/recovery is not recommended. Waste disposal in accordance with regulations (most probably controlled incineration).

Uncleaned Packagings:

Recommendation: Disposal must be made according to official regulations.

Hazardous Waste: This product is classified as HAZARDOUS WASTE.

14. Transport Information

14.1. UN number

ADR, IMDG, IATA

UN 3105

14.2. UN proper shipping name

ADR IMDG IATA

Organic Peroxide. Type D, Liquid. (Methyl ethyl ketone peroxide)

14.3. Transport hazard class(es)

ADR, IMDG, IATA

Class

5.2

Label 5.2



14.4. Packing group

ADR, IMDG, IATA II

14.5. Environmental hazards:

Marine pollutant: no

Additional Information:

ADR

Tunnel restriction code D

IMDG

EMS F-J, S-R

15. Regulatory Information

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

Dangerous Preparations Directive 1999/45/EC

Regulation (EC) No 1907/2006 (REACH)

Regulation (EC) 1272/2008 on Classification, labeling, and packaging of substances, and mixtures.

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009

Workplace Exposure Limits EH40

Water hazard class: 1

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16. Other Information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H226 Flammable liquid and vapour.
- H240 Heating may cause an explosion
- H242 Heating may cause a fire
- H302 Harmful if swallowed
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin
- H314 Causes severe burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness
- H372 Causes damage to organs through prolonged or repeated exposure.

R07	May cause fire.
R11	Highly flammable.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification C – Corrosive
 O – Oxidising

R May Cause Fire
R22 Harmful if swallowed
R34 Causes burns

Symbols



Note

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality.

The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

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