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

1.1. Product identifier
Trade name or designation of the mixture
Hylobond 5101 Activator
Registration number
-
Synonyms
None.
SDS number
31
Issue date
23-September-2015
Version number
02
Revision date
23-August-2018
Supersedes date
23-September-2015

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Activator
Uses advised against
Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet
Manufacturer:
Hylomar Ltd.
Address:
Hylo House, Cale Lane, New Springs,
Wigan, Greater Manchester,
UK, WN2 1J
Telephone number:
+44(0)1942 617000
E-mail address:
info@hylomar.co.uk
Contact person:
Technical Department

1.4. Emergency telephone number
Access code: 333544

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.
Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards
Serious eye damage/eye irritation Category 2
Skin sensitisation Category 1

Environmental hazards
Hazardous to the aquatic environment, acute Category 1
Hazardous to the aquatic environment, long-term aquatic hazard Category 1

Hazard summary
Causes serious eye irritation. May cause an allergic skin reaction. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains:
Dibenzoyl peroxide, Dibutyl maleate

Signal word
Warning

Hazard pictograms

Hazard statements

Hylobond 5101 Activator
930222 Version #: 02 Revision date: 23-August-2018 Issue date: 23-September-2015
Precautionary statements

Prevention
P280 Wear eye protection/face protection.
P280 Wear protective gloves.

Response
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.
P391 Collect spillage.

Storage
Store away from incompatible materials.

Disposal
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information
None.

2.3. Other hazards
This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name % CAS-No. / EC No. REACH Registration No. Index No. Notes

Dipropylene glycol dibenzoate 45 - 50 27138-31-4 248-258-5 - -

Classification: Aquatic Chronic 3; H412

Dibenzoyl peroxide 10 - 15 94-36-0 202-327-6 - 617-008-00-0

Classification: Org. Perox. B; H241, Skin Sens. 1; H317, Eye Irrit. 2; H319, Aquatic Acute 1; H400(M=10), Aquatic Chronic 1; H410(M=10)

Dibutyl maleate 6 - 8 105-76-0 203-328-4 - -

Classification: Skin Sens. 1; H317, STOT RE 2; H373, Aquatic Acute 1; H400

List of abbreviations and symbols that may be used above
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments
The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.

4.3. Indication of any immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards
Heating may cause a fire or explosion.

5.1. Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.
During fire, gases hazardous to health may be formed.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tanks due to fire.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. When using do not smoke. Keep away from clothing and other combustible materials. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Keep only in the original container. Store away from other materials.

7.3. Specific end use(s)

Activator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibenzoyl peroxide (CAS 94-36-0)</td>
<td>TWA</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels (DNELS)

Not available.

Predicted no effect concentrations (PNECs)

Not available.
Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Wear safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

Skin protection

- Hand protection

Wear suitable gloves tested to EN374. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Paste.
Form Paste.
Colour Black.

Odour

Mild.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point > 100.0 °C (> 212.0 °F) Closed cup

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density Not available.

Solubility(ies) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not explosive.

Oxidising properties Not oxidising.

9.2. Other information

No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Material is stable under normal conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerisation can occur.

10.4. Conditions to avoid
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Sunlight. Contact with incompatible materials.

10.5. Incompatible materials

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

SECTION 11: Toxicological information

General information
Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

- **Inhalation**
  - Prolonged inhalation may be harmful.

- **Skin contact**
  - May cause an allergic skin reaction.

- **Eye contact**
  - Causes serious eye irritation.

- **Ingestion**
  - May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

- **Skin corrosion/irritation**
  - Due to partial or complete lack of data the classification is not possible.

- **Serious eye damage/eye irritation**
  - Causes serious eye irritation.

- **Respiratory sensitisation**
  - Due to partial or complete lack of data the classification is not possible.

- **Skin sensitisation**
  - May cause an allergic skin reaction.

- **Germ cell mutagenicity**
  - Due to partial or complete lack of data the classification is not possible.

- **Carcinogenicity**
  - Due to partial or complete lack of data the classification is not possible.

  **IARC Monographs. Overall Evaluation of Carcinogenicity**
  - Dibenzoyl peroxide (CAS 94-36-0) 3 Not classifiable as to carcinogenicity to humans.

- **Reproductive toxicity**
  - Due to partial or complete lack of data the classification is not possible.

- **Specific target organ toxicity - single exposure**
  - Due to partial or complete lack of data the classification is not possible.

- **Specific target organ toxicity - repeated exposure**
  - Due to partial or complete lack of data the classification is not possible.

- **Aspiration hazard**
  - Not likely, due to the form of the product.

- **Mixture versus substance information**
  - No information available.

- **Other information**
  - Not available.

SECTION 12: Ecological information

12.1. Toxicity
Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibenzoyl peroxide (CAS 94-36-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>LC50</td>
<td>Pseudokirchnerella subcapitata</td>
</tr>
<tr>
<td>Fish</td>
<td>EC50</td>
<td>Oncorhynchus mykiss</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

- **Partition coefficient**
  - n-octanol/water (log Kow)
    - Dibenzoyl peroxide (CAS 94-36-0) 3.46

- **Bioconcentration factor (BCF)**
  - Not available.

12.4. Mobility in soil
No data available.
12.5. Results of PBT and vPvB assessment
This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects
The product contains volatile organic compounds which have a photochemical ozone creation potential.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code
The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions
Dispose of in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dibenzoyl peroxide)
14.3. Transport hazard class(es)
   Class 9
   Subsidiary risk -
   Label(s) 9
   Hazard No. (ADR) 90
   Tunnel restriction code E
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dibenzoyl peroxide)
14.3. Transport hazard class(es)
   Class 9
   Subsidiary risk -
   Label(s) 9
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dibenzoyl peroxide)
14.3. Transport hazard class(es)
   Class 9
   Subsidiary risk -
   Label(s) 9
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number UN3082
14.2. UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Dibenzoyl peroxide)
14.3. Transport hazard class(es)
- Class 9
- Subsidiary risk -

14.4. Packing group
- III

14.5. Environmental hazards
- Yes

14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IMDG

14.1. UN number
UN3082

14.2. UN proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dibenzoyl peroxide)

14.3. Transport hazard class(es)
- Class 9
- Subsidiary risk -

14.4. Packing group
- III

14.5. Environmental hazards
- Marine pollutant: Yes
- EmS: F-A, S-F

14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not established.

SECTION 15: Regulatory information

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

EU regulations
- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
  Not listed.
  Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
  Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
  Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
  Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
  Not listed.
  Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
  Not listed.

Authorisations
- Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended
  Not listed.

Restrictions on use
- Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
  Not listed.
- Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.
  Not listed.

Other EU regulations
- Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
  Not listed.
Other regulations
The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

Directive 2012/18/EU on major accident hazards involving dangerous substances: P6a and E1.

National regulations
Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations
LC50: Lethal Concentration, 50%.
EC50: Effective Concentration, 50%.
TWA: Time Weighted Average Value.
ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.

References
ECHA CHEM

Information on evaluation method leading to the classification of mixture
The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15
H241 Heating may cause a fire or explosion.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure by ingestion.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Training information
Follow training instructions when handling this material.

Disclaimer
Hylomar Ltd. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.