

SDS SHEET

[In accordance with the regulation no 1907/2006 (Reach) and 453/210]

SECTION 1

Identification

Product identifier Gard-Deck ® Hardener 500

Other means of identification Not determined

Recommended use: Coating

Manufacturer: Hydro-Gard, LLC

Address: 18340 Yorba Linda Blvd, Suite 107, Box 304, Yorba Linda, CA 92886

Contact Name: Sara Sears

Telephone / Fax 562/944-7030 / Fax: 562/944-6402

E-Mail: saras@hydro-gard.com

Incident Spill, Leak, Fire,
Exposure, or Accident

CHEMTREC Day or Night
1-800-424-9300 / +1 703-527-3887 **CCN 825652**

SECTION 2

Hazard (s) Identification

Classification of substance or mixture Classification according to 1272/2008/EC
Org. Perox. D H242, Skin Sens 1 H317, Eye Irrit. 2 H319, Repr. 2 H361f, Aquatic Acute 1 H410.

Physical Hazards Heating may cause a fire.

Health Hazards May cause an allergic skin reaction. Causes serious eye irritation. Suspected of damaging fertility.

Environmental hazards Very toxic to aquatic life with long lasting effects.

Label elements



Signal Word Danger

Product Identifier Dibenzoylperoxid, Dicyclohexylphthalat

Hazard Statements:

H242 Heating may cause a fire.

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H360D May damage the unborn child

H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

| | |
|---------------------------|---|
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces - No Smoking |
| P220 | Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e.g: heavy metal compounds and amines) |
| P234 | Keep only in original container |
| P260 | Do not breathe dust. |
| P264 | Wash thoroughly after handling |
| P273 | Avoid release into the environment |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P305+P351+P338 if in eyes | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing |
| P308 + P313 | If exposed or concerned: Get medical advice/attention |
| P410 | Protect from sunlight |
| P420 | Store at temperatures not exceeding 30 °C. Keep cool. |
| P501 | Dispose of contents and container according to local regulation. |
| Other hazards: | The components of this mixture do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH. |

SECTION 3 Composition / Information on Ingredients

Substances Not applicable

Mixtures Chemical characterization: Mixtures, Dibenzoylperoxid, Dicclohexlphthalat

Dangerous ingredients:

| Chemical name | Classification acc to 1272/2008/ | Identifier Codes | % |
|----------------------|--|---|--------|
| Dibenzoylperoxid | EC: Org. Perox. BH241, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic. Acute 1 H400, Aquatic Chronic 1 H410 | CAS: 94-36-0 EINECS: 202-327-6 Index Number: 617-008-00-0 Reach number: 01-2119511472-50 | 40-50% |
| Dicyclohexylphthalat | EC: Repr. 2 H361f, Skin Sens. 1 H317, Aquatic Chronic 3 H412 | CAS: 84-61-7 EINECS: 201-545-9 Index Number: 612-056-00-9 Reach Reg number: | 40-55% |

Additional Information: For the wording of the hazard statements refer to section 16

SECTION 4 First - Aid Measures

General Information: Take off contaminated clothing immediately. Move the victim to fresh air. Take care of personal protection for the first aider.

Inhalation: Consult a doctor if disturbing symptoms appear. Move the victim to fresh air. Keep victim warm and calm. If unconscious place and transport in the recovery position.

Skin Contact: Wash the contaminated skin thoroughly with plenty of soap and water. Rinse thoroughly. Take off contaminated clothing immediately. Consult a doctor if disturbing symptoms appear.

| | |
|---|--|
| Eye contact: | Protect the non-irritated eye, remove contact lenses. Wash the contaminated eye with plenty of water for several minutes with running water. Wash the eye with eyelid open for several minutes. Avoid powerful water stream-risk of cornea damage. Consult a doctor if disturbing symptoms appear. Consult a doctor if symptoms persist. |
| Ingestion: | Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor immediately, show the container or label. |
| Most important symptoms and effects, both acute and delayed | The product may trigger sensitization of the skin and respiratory tract. Treatment of acute eye/skin irritation or bronchial constriction is primarily symptomatic. Extended medical treatment may be required depending on the degree of exposure and the severity of the symptoms. |
| Indication of any immediate medical attention and special treatment needed: | Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment. |

SECTION 5 Fire - Fighting Measures

| | |
|---|---|
| Extinguishing media | |
| Suitable extinguishing media: | Water spray, CO ₂ , sand, extinguishing powder. Fight larger fires with water spray or alcohol resistant foam. |
| Special hazards arising from the substance or mixture | During fire, the product may produce toxic fumes of cracked Hydrocarbons, Carbon Monoxide, and Carbon Dioxide.. Do not inhale combustion products, they can be dangerous for human health. |
| Advice for fire fighters | Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters. Cool down endangered containers with water spray. |

SECTION 6 Accidental Release Measures

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | Use personal protective measures. Ensure adequate ventilation. Avoid skin and eyes contamination. Do not breathe vapors. Wear respirator with a filter. Keep away from sources of ignition. With further increase of temperature cool down with water spray from a safe distance. |
| Environmental precautions | Do not allow product to reach sewage system, water bodies or ground/soil. In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services. |
| Methods and material for containment and cleaning up | Ensure adequate ventilation. Stop leakage if possible. Dilute larger quantities to a level below 10% with a suitable desensitizing agent before disposal. Eliminate all sources ignition, and do not generate flames or sparks. Do not flush with water or aqueous cleaning agents. Collect in a suitable container. Treat the collected material as waste. Clean the contaminated place and ventilate it. Collect mechanically and dispose in accordance with government regulations. |
| Reference to other sections: | Appropriate conduct with waste product - Section 13. Personal protective equipment - see Section 8. Safe Handling - see Section 7. Additional information: In case of transport accidents or large spills notify appropriate authority. |

SECTION 7

Handling and Storage

Precautions for safe handling

Keep away from heat or direct sunlight. Handle and open containers with care. Avoid dust formation. When decanting larger quantities without extractor use respirator. Do not refill residue into storage receptacles. Restrict quantity stored at the workplace. Wash thoroughly before breaks and at the end of the work day. The product may only get in contact with suitable materials such as polythylene or stainless steel. Keep away from dirt, rust, chemicals in particular concentrated alkalis and concentrated acids (eg: Heavy metal salts and amines). Oxidizing effect through the release of oxygen. Ensure suitable suction/ventilation in the workplace or at the working machines. Keep empty containers away from heat and sources of ignition. Handle in accordance with good occupational hygiene and safety practices. Avoid contact with skin and eyes. Do not breathe vapors. Use only in accordance with the identified purpose. Keep away from ignition sources - no open flames or sparks. Do not eat, drink or smoke when using this product. Protect against electrostatic charges. Use only non-sparking tools. Ensure good interior ventilation, especially at floor level. Avoid spark or friction. Avoid electrostatic charging.

Precautions for preventing fire and explosions:

Keep away from heat. Take measures to prevent electrostatic charging. Avoid shock and friction. Use explosion proof equipment/fittings and spark proof tools. Dust can combine with air to form an explosive mixture. Substance/Product is oxidizing in dry state. Formation of flammable or explosive dust/air mixture is possible. Avoid open flames, sparks, sunlight, and otehr sources of ignition. Keep ignition sources away. Do not smoke.

Conditions for safe storage, including any incompatibilities

Observe country specific requirements for storage of hazardous substances. Keep in a dry, cool and well-ventilated area. Keep away from high temperatures and direct sunlight. Temperature recommended for storage: 41 °F - 77 °F (5 - 25 °C). Keep containers tightly sealed. Do not allow to dry out. Avoid contact with skin and eyes. Avoid incompatible materials. Keep away from food, and beverages. Protect against contamination. Storage class 5.2

Specific and use (s)

No information about other uses than those mentioned in Section 1

SECTION 8

Exposure Controls / Personal Protection

Control Parameters

| | | |
|--|---------------------|---------|
| Dibenzoylperoxid CAS 94-36-0 | | |
| AGW | 5 mg/m ³ | germany |
| Dicyclohexylphthalat CAS 84-61-7 | | |
| AGW | 5 mg/m ³ | germany |
| Legal basis: Commission Directive 2006/15/EC Please check any national occupational exposure limit values in your country | | |

DNEL and PNEC for Dibenzoylperoxid (CAS 94-36-0)




| DNEL | ORAL | INHALATION | DERMAL |
|--|-------------------------|-------------------------|-----------|
| Workers, long-term, systemic effects | 1.65 mg/cm ³ | 2.9 mg/m ³ | 3.3 mg/kg |
| Consumers, long-term, systemic effects | 1.65 mg/cm ³ | 11.75 mg/m ³ | 6.6 mg/kg |

| Comment | PNEC | |
|---------------------------------------|----------------|--|
| PNEC Freshwater | 0.000602 mg/l | |
| PNEC Seawater | 0.0000602 mg/l | |
| PNEC Freshwater and Seawater Sediment | 0.338 mg/kg | |

| | | |
|-----------|------------|--|
| PNEC STP | 0.35 mg/L | |
| PNEC Oral | 6.67 mg/kg | |

DNEL and PNEC for Dicyclohexylphthalat (CAS 84-61-7)

| DNEL | ORAL | INHALATION | DERMAL |
|--------------------------------------|------------------------|------------------------|-----------|
| Workers, long-term, systemic effects | | 35.2 mg/m ³ | 0.5 mg/kg |
| Comment | PNEC | | |
| PNEC Freshwater | 0.00362 mg/l | | |
| PNEC Seawater | 0.000362 mg/l | | |
| PNEC Freshwater Sediment | 1.06 mg/kg Dry weight | | |
| PNEC Seawater Sediment | 0.106 mg/kg Dry Weight | | |
| PNEC STP | 10 mg/L | | |
| PNEC Soil | 0.21 mg/kg Dry weight | | |

| | |
|---|--|
| Exposure Controls | Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Keep away from foodstuffs, beverages and food. Take off contaminated clothing immediately. Avoid contact with skin and eyes. Protective clothing should be stored separately. |
| Hand protection  | <p>Only use chemical-protective gloves with CE-labeling of category III: Nitrile rubber, Butyl rubber. Recommended thickness of material: >= 0,5 mm</p> <p>The section of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>www.gisbau.de/service/epoxi/expotab.html</p> |
| Eye protection  | Use tightly fitting protective glasses |
| Respiratory protection  | Recommended filter device for short term use; Combination filter A-P2 |
| Body Protection | <p><u>Protective clothing necessary</u></p> <p>Applied personal protective equipment must comply with requirements of the Directive 89/686/EC. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.</p> |
| Environmental exposure controls | Do not allow large quantities of the product to contaminate ground water, canalization, sewages or soil. |

SECTION 9**Physical and Chemical Properties**

Information on basic physical and chemical properties

| | |
|--|----------------------------|
| Physical State: | Solid, free flowing powder |
| Color: | White |
| Odor | Characteristic |
| Odor threshold | Not determined |
| Density | 1.23 g/cm ³ |
| Bulk Density | 650 kg/cm ³ |
| pH: | Not Applicable |
| Melting point/freezing point: | Not Applicable |
| Initial boiling point and boiling range: | Not Applicable |
| Flash point: | Not Applicable |
| Inflammability (solid/gaseous) | may cause fire |
| Explosion Dangerousness | Not Explosive |
| Ignition Temperature: | Not determined |
| Decomposition Temperature | Not determined |
| Oxidizing Potential | +60 ° C SADT |
| Vapor Pressure | Not determined |
| Rate of vaporization | Not Applicable |
| Water solubility | Not Applicable |
| Liposolubility | Not determined |
| Soluble in | Not determined |
| Distribution Coefficient | Not determined |
| n-Octanol/Water | Not determined |
| Viscosity | Not applicable |
| Solvent Separation test | Not determined |
| Solvent Content | Not determined |

The formation of explosive vapor/air mixtures is possible

Other Information: Active Oxygen: 3.2 - 3.4%

SECTION 10**Stability and Reactivity**

| | |
|------------------------------------|---|
| Reactivity | No further information relevant |
| Chemical stability | <p>The product is stable under normal conditions of use and storage.</p> <p>Do not overheat to avoid thermal decomposition</p> <p><u>Thermal decomposition conditions to be avoided:</u></p> <p>SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self-accelerated decomposition in the transport packaging can occur. A dangerous self-accelerating decomposition reactions, at unfavorable conditions explosion or fire, through thermal decomposition can occur at or over the specified temperature. Contact with incompatible substances at or below SADT can cause decomposition.</p> |
| Possibility of hazardous reactions | Self-accelerating decomposition at SADT |
| Condition to avoid | Avoid heat sources and direct exposure to sunlight. |
| Incompatible materials | Avoid contact with rust, iron and copper. Contact with incompatible materials such as acids, alkalies, heavy metals and reducing agent will result in hazardous decomposition. Do not mix with peroxide accelerators. |
| Hazardous decomposition products | <p>Cracked Hydrocarbons; Carbon Monoxide, Carbon Dioxide</p> <p>No dangerous decomposition products under normal storage and handling conditions. The emergency measures will depend on the particular circumstances. An emergency plan should be present at the work site.</p> |

SECTION 11**Toxicological Information**

Information on toxicological effects

Acute toxicity:

| | | | |
|----------------------------------|------------------|--------------|-------|
| Dibenzoylperoxid, CAS 94-36-0 | | | |
| Oral | LD ₅₀ | >5000 mg/kg | (rat) |
| Inhalativ | LD ₅₀ | >24300 mg/kg | (rat) |
| Dicycloexylphthalat, CAS 84-61-7 | | | |
| Oral | LD ₅₀ | >2000 mg/kg | (rat) |
| Dermal | LD ₅₀ | >2000 mg/kg | (rat) |

Toxicity of the product:

| | |
|-----------------------------------|--|
| Acute Toxicity | ATEmix (oral) >2000 mg/kg. Based on available data, the classification criteria are not met. |
| Skin Corrosion/Irritation | Based on the available data, the classification criteria are not met. |
| Serious Eye Damage/Irritation | Causes serious eye irritation |
| Respiratory or skin Sensitization | May cause an allergic skin reaction |
| 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 or the unborn child |
| STOT-single exposure | Cause eye irritation |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. |

SECTION 12**Ecological Information (non-mandatory)**

Toxicity

Aquatic toxicity:

| | | |
|-----------------------------------|------------------|-----------------|
| Dibenzoylperoxid , CAS 94-36-0 | | |
| Algae toxicity | EC ₅₀ | 0.0711 mg/l/72h |
| Daphnia toxicity | EC ₅₀ | 0.11 mg/l/48h |
| Fish toxicity | LC ₅₀ | 0.0602 mg/l/96h |
| Dicyclohexylphthalat, CAS 84-61-7 | | |
| Algae toxicity | EC ₅₀ | 2 mg/l/96h |
| Daphnia toxicity | EC ₅₀ | 2 mg/l/96h |
| Fish toxicity | LC ₅₀ | 2 mg/l/96h |

Persistence and degradability

No further relevant information available

Bioaccumulative potential

No further relevant information available

Mobility in soil

No further relevant information available

Results of PBT and vPvB assessment

Not applicable

Other adverse effects

Exotic Effects:

Remark: Very toxic to fish

Water Hazard Class:

2 (self classification) water endangering

General Information:

Do not allow product to reach ground water, waters or the sewage even in small quantities. Drinking water hazard, even if small quantities leak in the underground. IN waters also poisonous for fish and plankton. Very toxic to water organisms.

SECTION 13**Disposal Consideration (non-mandatory)**

Waste treatment methods

Must be supplied to a special treatment (eg: thermal utilization) in accordance with government regulations after diluting to 10% peroxide content with inert solid. Must not be disposed together with household garbage. Do not allow product to reach sewage. Disposal methods for the product: disposal in accordance with the local legislation. Store residues in original containers.

Disposal methods for used packing:

This product and it's container must be disposed of as hazardous waste.

European waste catalogue:

Please make contact with the disposal company of your choice to agree on waste key number

SECTION 14**Transport Information (non-mandatory)**

UN Number

3106

ADR, IMDG, IATA

3106 - Organic Peroxide Type D, Solid (Dibenzoyl Peroxide) Marine Pollutant

UN proper shipping name

3106 - Organic Peroxide Type D, Solid (Dibenzoyl Peroxide) Marine Pollutant

ADR Organic Peroxide Type D, Solid

IMDG, IATA Organic Peroxide Type D, Solid

Transport hazard class(es)

ADR 5.2 (P1) Organic Peroxide
Danger chit: 5.2

IMDG, IATA 5.2 (P1) Organic Peroxide
Danger chit: 5.2



Packing Group Omitted

Environmental Hazards This product contains environmentally dangerous substances: DIBENZOYL PEROXIDE
Marine Pollutant: Yes , Symbol: Fish and Tree
Special Labeling (ADR): Symbol: Fish and Tree

Special Precautions for User EMS-Number: F-J,S-R

Transport/Additional information: Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code - Not Applicable

Transportation Information: Limited quantities (LQ): 500 g

Transportation Category: 2

Tunnel restriction code: D

RID/GGVCEB: See ADR

SECTION 15 Regulatory Information (non-mandatory)

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

Directive 2012/18/EU

Qualifying Quantity (tonnes) for the application of lower tier requirements: 50 t

Qualifying Quantity (tonnes) for the application of lower tier requirements: 200 t

National Regulations:

Other regulations limitations and prohibitive regulations:

Note: Take care of the respective local regulations

Chemical safety assessment A Chemical Safety Assessment has not been carried out.

SECTION 16**Other Information, Including date of preparation or last revision**

This data is 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.

H-phrases:

| | |
|-------|--|
| H242 | Heating may cause a fire |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H360 | May damage the unborn child |
| H361f | Suspected of damaging fertility |
| 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 |

Clarification of aberrations and acronyms

| | |
|------------|--|
| PBT | Persistent, Bioaccumulative and toxic substance |
| vPvB | Very Persistent, very Bioaccumulative substance |
| ADR | Accord to European sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Rail) |
| RID | Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) |
| IMDG | International Maritime Code for Dangerous Goods |
| IATA | International Air Transport Association |
| GHS | Globally Harmonized System of Classification and Labeling of Chemicals |
| GefStoffV | Ordinance on Hazardous Substances, Germany |
| LC50 | Lethal concentration, 50 percent |
| LD50 | Lethal dose, 50 percent |
| Other Data | Classification was based on data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP). |

The information and recommendations provided in this Safety Data Sheet are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information supplied upon the condition that the persons receiving said information will make their own determination as to its suitability for their particular purpose prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representation or warranties, either expressed or implied. Including the merchantability or fitness for a particular purpose are made herein with information contained herein is deemed to be reliable, conservative and accurate. Hydro-Gard, LLC reserves the right to change the design, specification or any other features at any time, without notice, while otherwise maintaining regulatory compliance.

End of Safety Data Sheet