



Material Safety Data Sheet



Lime buster / hagesan blue

Section 1. Chemical product and company identification

Manufacturer : HG International b.v. **Code** : 1011064
Address : Damsluisweg 70 1332 EJ Almere **MSDS#** : 1.06
Country : Netherlands **Validation date** : 5/19/2010.
Telephone No.: : +31 (0)36 54 94 700 **Print date** : 5/19/2010.
Fax : +31 (0)36 54 94 744 **Responsible name** : P. Stienstra
Internet: : www.hg.eu **Telephone No.:** : +1.705.726.5445
Supplier : Solstrand Trading **Fax** : +1.705.734.0857
Address : 60 Lockhart road Barrie, Ontario L4N 9G8 **Country** : Canada
Material uses : Not available.
In Case of Emergency : Chem. Tel Inc. (813) 248 0585 or Toll free (800) 255 3924

Section 2. Composition, Information on Ingredients

| Name | CAS # | % by weight | Exposure limits |
|---|------------|-------------|-----------------|
| aqua | 7732-18-5 | 30-100 | Not available. |
| phosphoric acid | 7664-38-2 | 15 - 30 | Not available. |
| ethanedioic acid, dihydrate | 144-62-7 | 1 - 5 | Not available. |
| propan-2-ol | 67-63-0 | 1 - 5 | Not available. |
| gluconic acid, d- | 526-95-4 | 1 - 5 | Not available. |
| alcohols, c11-14-iso-, c13-rich, ethoxylated | 78330-21-9 | 1 - 5 | Not available. |
| Mixture of mineral oils and non-ionic surfactants | mixture | 0-1 | Not available. |
| Perfume ingredient. | mixture | 0-1 | Not available. |
| castor oil, hydrogenated, ethoxylated | 61788-85-0 | 0-1 | Not available. |

Section 3. Hazards identification

Physical State and Appearance : Liquid.

Emergency overview : DANGER
CORROSIVE.
CAUSES EYE AND SKIN BURNS.
Caution ! Do not use in combination with other products, hazardous gasses (chlorine) could be released.
Do not mix with [***].chlorine-based bleaching agents
Do not swallow.
Avoid contact with eyes, skin and clothing.
Handle and open container with care.
Keep out of the reach of children.
Wear suitable protective clothing, gloves and eye/face protection.

Routes of entry : Dermal contact. Eye contact. Ingestion.

Potential acute health effects

Eyes : Extremely dangerous in case of eye contact Corrosive to eyes. Inflammation of the eye is characterized by redness, watering, and itching.

Skin : Extremely dangerous in case of skin contact Corrosive to skin on contact. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation : Over-exposure by inhalation may cause respiratory irritation.

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

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| Potential chronic health effects | : CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [propan-2-ol]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. |
| Medical conditions aggravated by overexposure: | : Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. |
| Over-exposure signs/symptoms | : Severely corrosive to the skin. Severely corrosive to the eyes. |
| See toxicological Information (section 11) | |

Section 4. First aid measures

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|---------------------------|--|
| Eye Contact | : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. |
| Skin Contact | : After contact with skin, wash immediately with plenty of [***]. Water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Inhalation | : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| Ingestion | : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. |
| Notes to Physician | : Not available. |

Section 5. Fire fighting measures

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| Flammability of the product | : Combustible. |
| Auto-ignition Temperature | : Not available. |
| Flash Points | : Closed cup: 61 to 93,3°C (141,8 to 199,9°F) [Pensky-Martens.] |
| Flammable limits | : Not available. |
| Products of combustion | : Decomposition products may include the following materials: carbon oxides (CO, CO ₂), phosphates. |
| Fire hazards in presence of various substances | : Not available. |
| Explosion hazards in presence of various substances | : Not available. |
| Fire fighting media and instructions | : In case of fire, use water spray (fog), foam, dry chemicals, or CO ₂ . Combustible liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. |
| Special protective equipment for fire-fighters | : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode. |
| Special remarks on fire hazards | : No additional remark. |
| Special remarks on explosion hazards | : Not available. |

Section 6. Accidental release measures

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| Personal precautions | : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Do not touch or walk through spilled material. |
| Environmental precautions | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. |
| Methods for cleaning up | : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. |

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Section 7. Handling and storage

- Handling** : Do not ingest. Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls, Personal Protection

- Engineering controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal protection

- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : 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 before handling this product.
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Other protection** : Not available.

Personal protective equipment (Pictograms)



- Personal protection in case of a large spill** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Exposure limits

| | |
|---|----------------|
| phosphoric acid | Not available. |
| ethanedioic acid, dihydrate | Not available. |
| propan-2-ol | Not available. |
| Perfume ingredient. | Not available. |
| gluconic acid, d- | Not available. |
| castor oil, hydrogenated, ethoxylated | Not available. |
| Mixture of mineral oils and non-ionic surfactants | Not available. |
| alcohols, c11-14-iso-, c13-rich, ethoxylated | Not available. |

[Consult local authorities for acceptable exposure limits.](#)

Section 9. Physical and chemical properties

- Physical State and Appearance** : Liquid.
- Color** : Yellowish.
- Odor** : Fragrance like.
- pH** : <1 [Conc. (% w/w): 100%]
- Relative density** : 1.135 g/cm³ (20°C / 68°F)
- Viscosity** : Not available.
- Solubility** : Easily soluble in the following materials: hot water, diethyl ether, acetone.
Soluble in the following materials: cold water.
Partially soluble in the following materials: methanol.
- Flash point** : Closed cup: 61 to 93,3°C (141,8 to 199,9°F) [Pensky-Martens.]
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

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Physical chemical comments : Solubility in other solvents: not soluble

Section 10. Stability and reactivity

Stability and Reactivity : The product is stable.

Conditions of instability : Not available.

Incompatibility with various substances : Highly reactive with Chlorine bleaching agent Reactive with alkalis and metals

Hazardous Decomposition Products : Reaction with chlorine bleaching agent gives toxic gas (Chlorine)

Hazardous polymerization : Will not occur.

Section 11. Toxicological information

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|--|------|-------------------|--------|--------|
| phosphoric acid | LD50 | 1530 mg/kg | Oral | Rat |
| | LD50 | 2740 mg/kg | Dermal | Rabbit |
| gluconic acid, d-propan-2-ol | LD50 | 2000 mg/kg | Oral | Rat |
| | LD50 | 5045 mg/kg | Oral | Rat |
| | LD50 | 6410 mg/kg | Oral | Rabbit |
| | LD50 | 3600 mg/kg | Oral | Mouse |
| | LD50 | 12800 mg/kg | Dermal | Rabbit |
| | LD50 | 12800 mg/kg | Dermal | Rabbit |
| | LDLo | 1537 mg/kg | Oral | Dog |
| | LDLo | 3570 mg/kg | Oral | human |
| alcohols, c11-14-iso-, c13-rich, ethoxylated | LDLo | 5272 mg/kg | Oral | man |
| | LD50 | 200 to 2000 mg/kg | Oral | Rat |
| | LD50 | 7500 mg/kg | Oral | Rat |
| Oxalic acid | LD50 | 20000 mg/kg | Dermal | Rabbit |
| | LDLo | 600 mg/kg | Oral | woman |

Chronic effects on humans :
 : **CARCINOGENIC EFFECTS:** Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [propan-2-ol].
 Contains material which causes damage to the following organs: kidneys, lungs, mucous membranes, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea, nose/sinuses, throat.

Other toxic effects on humans : Extremely hazardous by the following route of exposure: of skin contact (irritant), of eye contact (irritant), of inhalation (lung irritant).
 Very hazardous by the following route of exposure: of ingestion.
 Hazardous by the following route of exposure: of skin contact (corrosive), of eye contact (corrosive), of inhalation (lung corrosive).

Special remarks on toxicity to animals : Not available.

Special remarks on chronic effects on humans : Not available.

Special remarks on other toxic effects on humans : Not available.

Specific effects

Carcinogenic effects : Contains material which may cause cancer based on animal data. Risk of cancer depends on duration and level of exposure.

Mutagenic effects : No known significant effects or critical hazards.

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

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|--|-------------------------------|------------|--------------|
| propan-2-ol | Pimephales promelas (EC50) | 48 hour(s) | 10000 mg/l |
| | Lepomis macrochirus (LC50) | 96 hour(s) | >1400 mg/l |
| | Pimephales promelas (LC50) | 96 hour(s) | 6550 mg/l |
| | Pimephales promelas (LC50) | 96 hour(s) | 9640 mg/l |
| | Pimephales promelas (LC50) | 96 hour(s) | 10400 mg/l |
| | Pimephales promelas (LC50) | 96 hour(s) | 11130 mg/l |
| alcohols, c11-14-iso-, c13-rich, ethoxylated | Flora (EC50) | 72 hour(s) | 1 to 10 mg/l |
| | LEUCISCUS IDUS (LC50) | 96 hour(s) | 1 to 10 mg/l |
| | Aquatic Invertebrates. (LC50) | 48 hour(s) | 1 to 10 mg/l |
| Oxalic acid | Daphnia magna (EC50) | 48 hour(s) | 136.9 mg/l |
| | LEUCISCUS IDUS (EC50) | 48 hour(s) | 242 mg/l |
| | DAPHNIA MAGNA (EC50) | 48 hour(s) | 137 mg/l |

BOD and COD : Not available.

Biodegradable/OECD : Readily biodegradable.

Mobility : Not available.

Products of degradation : Decomposition products may include the following materials: carbon oxides (CO, CO₂) and water, phosphates.

Toxicity of the products of biodegradation : The products of degradation are non-toxic.

Special remarks on the products of biodegradation : Not available.



Section 13. Disposal considerations

Waste information : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.




Waste stream : Not available.

[Consult your local or regional authorities.](#)

Section 14. Transport information

| Regulatory Information | UN number | Proper shipping name | Class | Packing group | Label | Additional information |
|---------------------------|-----------|---|-------|---------------|---|---|
| DOT Classification | 1760 | CORROSIVE LIQUID N.O.S. (Phosphoric acid, 20%, mixture), UN 1760, PG III | 8 | III |  | Special provisions Limited Quantity for inner packages less than 4 liters Remarks ORM-D / CONSUMER COMMODITY for inner packages less than 4 liters |
| TDG Classification | 1760 | CORROSIVE LIQUID N.O.S. (Phosphoric acid, 20%, mixture), UN 1760, PG III (phosphoric acid) | 8 | III |  | Special provisions ORM-D / CONSUMER COMMODITY Remarks Limited Quantity |
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|-----------------------|------|---|---|-----|---|---|
| ADR/RID Class | 1760 | UN 1760, "dangerous goods in limited quantities of class 8", III, ADR (phosphoric acid) | 8 | III |  | <p>Hazard identification number 80</p> <p>Reportable quantity 12</p> <p>Limited quantity LQ19</p> <p>Remarks Limited quantity for upto 3 litre inner packing Else; UN 1760, CORROSIVE LIQUID, N.O.S., (Phosphoric acid, mixture), class 8, III, ADR</p> |
| IMDG Class | 1760 | "dangerous goods in limited quantities of class 8" UN 1760, PG III (phosphoric acid) | 8 | III |  | <p>Emergency schedules (EmS) F-A, S-B</p> <p>Reportable quantity 30</p> <p>Remarks Limited quantity for upto 1 l inner packing. Else; CORROSIVE LIQUID, N.O.S., (Phosphoric acid, 20%, mixture), class 8, UN 1760, PG III</p> |
| IATA-DGR Class | 1760 | "dangerous goods in limited quantities of class 8" UN 1760, PG III (phosphoric acid) | 8 | III |  | - |

Section 15. Regulatory information

WHMIS (Canada) : Class E: Corrosive liquid.
 CEPA DSL: bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl-, acetate, exo-; castor oil, hydrogenated, ethoxylated; aqua; propan-2-ol; alcohols, c11-14-iso-, c13-rich, ethoxylated; ethanedioic acid, dihydrate; phosphoric acid; gluconic acid, d-

International regulations

EINECS : Not available.
DSCL (EEC) : R34- Causes burns.
International lists :

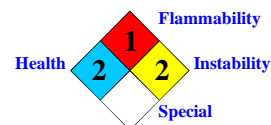
Section 16. Other information

Label Requirements : CORROSIVE.
 CAUSES EYE AND SKIN BURNS.
 Caution ! Do not use in combination with other products, hazadours gasses (chlorine) could be released.

Hazardous Material Information System (U.S.A.)

| | |
|---------------------|---|
| Health | 2 |
| Fire hazard | 1 |
| Reactivity | 2 |
| Personal protection | C |

National Fire Protection Association (U.S.A.)



References : Not available.

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Other special considerations : Not available.

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