

Safety Data Sheet acc. to OSHA HCS

Printing date 05/28/2015


Version: 4

Reviewed on 05/28/2015

1 Identification

- **Product identifier**
- **Trade name:** Chrysal LEAFSHINE (aerosol)
- **Article number:** 703.xxx.xxx
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Plant care product
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Chrysal International BV
P.O. Box 5300
1410 AH NAARDEN
Gooimeer 7
1411 DD NAARDEN
The Netherlands
Tel.: +31 (0)35 6955888
Fax: +31 (0)35 6955822
E-mail: info@chrysal.nl
- **Information department:**
Chrysal Americas 1-800-247-9725
Department: Regulatory Affairs of Chrysal International BV, the Netherlands
- **Emergency telephone number:**
ChemTel Inc. 1-800-255-3924 Int. +01-813-248-0585
+31 (0)35 6955851 or +31 (0)35 6955827 (during office hours: UTC+1)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS02
- **Signal word** Danger
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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Trade name: *Chrysal LEAFSHINE (aerosol)*

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances with nonhazardous additions.

· **Dangerous components:**

90622-57-4	Mixture of isoparaffin	≥25<50%
106-97-8	butane	≥10<25%
74-98-6	propane	≥10<25%
67-63-0	propan-2-ol	≥5<10%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air.
- **After skin contact:**
Rinse with warm water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse mouth with water and drink one or two glasses of water.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Keep away from ignition sources
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Keep contaminated washing water and dispose of appropriately.
- **Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

106-97-8 butane

REL	1900 mg/m ³ , 800 ppm
TLV	Varies mg/m ³ , 1000 ppm

74-98-6 propane

PEL	1800 mg/m ³ , 1000 ppm
REL	1800 mg/m ³ , 1000 ppm
TLV	Varies mg/m ³ , 1000 ppm

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67-63-0 propan-2-ol

PEL	980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm
BEI	

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:** Not required.
- **Material of gloves -**
- **Penetration time of glove material -**
- **Eye protection:** When following instructions eye protection is not necessary

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Aerosol
Color:	Colorless
- **Odor:** Mineral-oil-like
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	< 35 °C (< 95 °F)
- **Flash point:** Not applicable, as aerosol.
- **Ignition temperature:** 365 °C (689 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Not determined.
- **Explosion limits:**

Lower:	1.5 Vol %
Upper:	10.9 Vol %
- **Vapor pressure at 20 °C (68 °F):** 8300 hPa (6226 mm Hg)
- **Density at 20 °C (68 °F):** 0.667 g/cm³ (5.566 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not applicable.

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- **Solubility in / Miscibility with Water:** *Not miscible or difficult to mix.*
- **Partition coefficient (n-octanol/water):** *Not determined.*
- **Viscosity:**
 - Dynamic:** *Not determined.*
 - Kinematic:** *Not determined.*
- **Solvent content:**
 - Organic solvents:** *50.0 %*
- **Solids content:** *50.0 %*
- **Other information** *No further relevant information available.*

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *Keep away from heat and direct sunlight.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

90622-57-4 Mixture of isoparaffin

Oral	LD50	>5000 mg/kg (rat) (OECD Guideline 401)
Dermal	LD50	>5000 mg/kg (rabbit) (OECD Guideline 402)
Inhalative	LC50/4 h	>5000 mg/l (rat) (OECD Guideline 403)

67-63-0 propan-2-ol

Oral	LD50	4570 mg/kg (rat)
Dermal	LD50	13400 mg/kg (rabbit)
Inhalative	LC50/4 h	>20 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** *Prolonged or repeated exposure may cause dryness or skin irritation*
 - **on the eye:** *Irritation is possible.*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

67-63-0	propan-2-ol	3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

90622-57-4 Mixture of isoparaffin

EC50 / 72h >1000 mg/l (*Pseudokirchneriella subcapitata*)

EC50/ 48h >1000 mg/L (*daphnia*)

IC50 / 72 >1000 mg/l (*Oncorhynchus mykiss*)

NOEC ≥1 mg/l (*daphnia*)

· **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**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Do not pierce or burn, even after use.

· **Uncleaned packagings:**

· **Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.
Non contaminated packagings can be used for recycling.

14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA** UN1950

· **UN proper shipping name**

· **ADR** 1950 AEROSOLS

· **IMDG** AEROSOLS

· **IATA** AEROSOLS, flammable

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· **Transport hazard class(es)**

· **DOT**



· **Class** 2.1
· **Label** 2.1

· **ADR**



· **Class** 2 5F Gases
· **Label** 2.1

· **IMDG, IATA**



· **Class** 2.1
· **Label** 2.1

· **Packing group**

· **DOT, ADR, IMDG, IATA** Void

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Warning: Gases

· **Danger code (Kemler):** -

· **EMS Number:** F-D,S-U

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:** Not dangerous according to the above specifications.

· **ADR**

· **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· **IMDG**

· **Limited quantities (LQ)** 1L
· **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN1950, Aerosols, 2.1

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15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

67-63-0 | propan-2-ol

· **TSCA (Toxic Substances Control Act):**

106-97-8 | butane

74-98-6 | propane

67-63-0 | propan-2-ol

63148-62-9 | Polydimethylsiloxane

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

67-63-0 | propan-2-ol

A4

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02

· **Signal word Danger**

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

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- P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Chrysal International BV, the Netherlands

Department: Product Safety & Regulatory Affairs

· **Date of preparation / last revision 05/28/2015 / 3**

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

· *** Data compared to the previous version altered.**