Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Printing date 21.02.2013 Revision: 21.02.2013

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

· **1.1 Product identifier**

· **Trade name: Green Heat**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the preparation** Fuel

· **1.3 Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**
SternoCandleLamp
1880 Compton Ave. 101
Corona, CA 92881
Phone: 951-682-9600

· **Further information obtainable from:** Product Safety Department

· **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

GHS02 flame

Flam. Sol. 1 H228 Flammable solid.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

F; Highly flammable

R11: Highly flammable.

· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

GHS02

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· **Signal word** Danger
· **Hazard statements**
H228 Flammable solid.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear eye/face protection.
P235 Keep cool.
P361 Remove/Take off immediately all contaminated clothing.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
· **Additional information:** N/A
· **Hazard description:**
· **WHMIS-symbols:**
B4 - Flammable solid

· **NFPA ratings (scale 0 - 4)**

Health = 2
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 2
Fire = 3
Reactivity = 0

· **HMIS Long Term Health Hazard Substances**	
64-17-5	ethanol

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

3 Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

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· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol F R11 Flam. Liq. 2, H225	>50%
CAS: 75-65-0 EINECS: 200-889-7 Index number: 603-005-00-1	2-methylpropan-2-ol Xn R20; Xi R36/37; F R11 Flam. Liq. 2, H225 Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	<1,0%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **4.1 Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
· **4.2 Most important symptoms and effects, both acute and delayed**
Headache
Dizziness
Thirst
Gastric or intestinal disorders
Unconsciousness
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
· **Additional information** Cool endangered receptacles with water spray.

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6 Accidental release measures

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

7 Handling and storage

· **7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
· **7.2 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.
Keep container tightly sealed.
Protect from heat and direct sunlight.
· **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
64-17-5 ethanol	
PEL (USA)	1900 mg/m³, 1000 ppm
REL (USA)	1900 mg/m³, 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	1,900 mg/m³, 1,000 ppm

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75-65-0 2-methylpropan-2-ol	
PEL (USA)	300 mg/m³, 100 ppm
REL (USA)	Short-term value: 450 mg/m³, 150 ppm Long-term value: 300 mg/m³, 100 ppm
TLV (USA)	303 mg/m³, 100 ppm
EL (Canada)	100 ppm
EV (Canada)	Short-term value: 150 ppm Long-term value: 100 ppm

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
· **Respiratory protection:** Not required.
· **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection 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.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Highly viscous
Colour:	Pink
· **Odour:**	Alcohol-like
· **Odour threshold:**	Not determined.
· **pH-value at 20 °C:**	8,0 ± 0,5

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· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	169 °F / 76 °C
· **Flash point:**	54 F / °12 °C
· **Flammability (solid, gaseous):**	Highly flammable.
· **Ignition temperature:**	846 °F / 452 °C (745 mm Hg / 980.3 mbar)
· **Decomposition temperature:**	Not determined.
· **Self-igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
· **Explosion limits:**	
Lower:	3,5 Vol %
Upper:	15,0 Vol %
· **Vapour pressure at 20 °C:**	59 hPa
· **Density at 20 °C:**	0,8 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with water:**	Partly soluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **9.2 Other information**	No further relevant information available.

10 Stability and reactivity

· **10.1 Reactivity**
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with strong oxidizing agents.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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11 Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**		
64-17-5 ethanol		
Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)
75-65-0 2-methylpropan-2-ol		
Oral	LD50	3500 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:** Vapours have narcotic effect.

12 Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** biodegradable
· **12.3 Bioaccumulative potential** Does not accumulate in organisms
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

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· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· **14.1 UN-Number**
· **DOT, ADR, IMDG, IATA** UN1325

· **14.2 UN proper shipping name**

Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1.0 kg (2.2 pounds).

· **DOT, ADR, IMDG, IATA** 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Ethanol)

· **14.3 Transport hazard class(es)**

· **DOT**

· **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
· **Label** 4.1

· **ADR**

· **Class** 4.1 (F1) Flammable solids, self-reactive substances and solid desensitised explosives.
· **Label** 4.1

· **IMDG, IATA**

· **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
· **Label** 4.1

· **14.4 Packing group**
· **DOT, ADR, IMDG, IATA** II

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· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Warning: Flammable solids, self-reactive substances and solid desensitised explosives.
· **Danger code (Kemler):**	33
· **EMS Number:**	F-A,S-G
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1 kg
· **Transport category**	2
· **Tunnel restriction code**	E
· **UN "Model Regulation":**	UN1325, FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II

15 Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 355 (extremely hazardous substances):**	
None of the ingredients is listed.	
· **Section 313 (Specific toxic chemical listings):**	
75-65-0	2-methylpropan-2-ol
· **TSCA (Toxic Substances Control Act):**	
All ingredients are listed.	

· **Proposition 65 (California):**

· **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:**	
64-17-5	ethanol

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· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**		
None of the ingredients is listed.		
· **IARC (International Agency for Research on Cancer)**		
64-17-5	ethanol	1
· **TLV (Threshold Limit Value established by ACGIH)**		
64-17-5	ethanol	A3
75-65-0	2-methylpropan-2-ol	A4
· **NIOSH-Ca (National Institute for Occupational Safety and Health)**		
None of the ingredients is listed.		
· **OSHA-Ca (Occupational Safety & Health Administration)**		
None of the ingredients is listed.		

· **Canada**

· **Canadian Domestic Substances List (DSL)**	
All ingredients are listed.	
· **Canadian Ingredient Disclosure list (limit 0.1%)**	
64-17-5	ethanol
· **Canadian Ingredient Disclosure list (limit 1%)**	
75-65-0	2-methylpropan-2-ol

· **15.2 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.

· **Relevant phrases**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

R11 Highly flammable.
R20 Harmful by inhalation.
R36/37 Irritating to eyes and respiratory system.

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

· **Sources**

SDS Prepared by:
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