

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/03/2013

Reviewed on 07/02/2013

1 Identification**Product identifier****Trade name:** Dual-Glo® Stop and Glo® Substrate**Article number:** E313**Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.**Application of the substance / the preparation** Laboratory chemicals**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330**Information department:** SDS author: Regulatory.Affairs@promega.com**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification**Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 Flame

H225 Highly flammable liquid and vapour.

Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labeled according to the CLP regulation.

Hazard pictograms GHS02**Signal word** Danger**Hazard statements**

H225 Highly flammable liquid and vapour.

Precautionary statements

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

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

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

P240 Ground/bond container and receiving equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

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Classification system:

NFPA ratings (scale 0 - 4)

Health = 0

Fire = 3

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 0

Fire = 3

Reactivity = 0

OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Flammable

Primary route(s) of entry:

Inhalation

Oral

Target Organ(s):

May cause Liver damage (Hepatotoxin)

May affect Nervous system (Neurotoxin)

Other hazards Keep away from sources of ignition.

Results of PBT and vPvB assessment

PBT: Not applicable.


vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

64-17-5	ethanol	 H225	75-100%
56-81-5	glycerol		15-20%

4 First-aid measures

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: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Dizziness

Nausea

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture None known

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Advice for firefighters In the case of fire, wear respiratory protective equipment and chemical protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

Wear protective clothing.

Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling Use only in well ventilated areas.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

64-17-5 ethanol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1880 mg/m³, 1000 ppm

56-81-5 glycerol

PEL Long-term value: 15* 5** mg/m³

*total dust **respirable fraction

TLV TLV withdrawn-insufficient data human occup. exp.

Additional information: The lists that were valid during the creation were used as basis.

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Exposure controls**Personal protective equipment:****General protective and hygienic measures:** Wash hands before breaks and at the end of work.**Breathing equipment:** Not required.**Protection of hands:**

Protective gloves

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.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

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

Form:	Fluid
Color:	Colorless
Odor:	Characteristic
Odour threshold:	Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	78 °C (172 °F)

Flash point: ≤ 21 °C (≤ 70 °F)**Flammability (solid, gaseous):** Not applicable.**Ignition temperature:** 400 °C (752 °F)**Decomposition temperature:** Not determined.**Auto igniting:** Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower:	0.9 Vol %
Upper:	15.0 Vol %

Vapor pressure at 20 °C (68 °F): 59 hPa (44 mm Hg)**Density at 20 °C (68 °F):** 0.853 g/cm³ (7.118 lbs/gal)**Relative density** Not determined.**Vapour density** Not determined.**Evaporation rate** Not determined.**Solubility in / Miscibility with****Water:** Fully miscible.**Partition coefficient (n-octanol/water):** Not determined.

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Viscosity:

Dynamic: Not determined.
Kinematic: Not determined.

Solvent content:

Organic solvents: 99.9 %
VOC content: 81.0 %
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* No further relevant information available.*Incompatible materials:* Oxidizing agents*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:* No data available**Primary irritant effect:***on the skin:* No irritant effect.*on the eye:* Irritating effect.*Sensitization:* No sensitizing effects known.**Additional toxicological information:****Carcinogenic categories**

IARC (International Agency for Research on Cancer)		
64-17-5	ethanol	I
7664-93-9	sulphuric acid	I
NTP (National Toxicology Program)		
7664-93-9	sulphuric acid	K

12 Ecological information**Toxicity***Aquatic toxicity:* Not harmful to the aquatic environment*Persistence and degradability* Not available**Behavior in environmental systems:***Bioaccumulative potential* Not known*Mobility in soil* No further relevant information available.**Ecotoxicological effects:***Remark:* Not available

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Additional ecological information:

General notes:

Water hazard class 1 (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.

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:

Disposal should be in accordance with applicable regional, national and local laws and regulations.



Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:

Recommendation: *Disposal must be made according to official regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

14 Transport information

UN-Number	
DOT, ADR, IMDG, IATA	UN1170
UN proper shipping name	
DOT	Ethanol solutions
ADR	1170 Ethanol solutions (Ethyl alcohol solutions)
IMDG	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA	ETHANOL SOLUTION
Transport hazard class(es)	
DOT	
	
Class	3 Flammable liquids.
Label	3
ADR	
	
Class	3 (F1) Flammable liquids

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Label	3
IMDG, IATA	
	
Class	3 Flammable liquids.
Label	3
Packing group	
DOT, ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler):	33
EMS Number:	F-E,S-D
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
	Not applicable.
UN "Model Regulation":	UN1170, Ethanol solutions (Ethyl alcohol solutions), 3, II

15 Regulatory information

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

64-17-5 ethanol

Carcinogenicity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

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TLV (Threshold Limit Value established by ACGIH)		
64-17-5	ethanol	A3
7664-93-9	sulphuric acid	A2
MAK (German Maximum Workplace Concentration)		
64-17-5	ethanol	5
7664-93-9	sulphuric acid	4
NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients are listed.		
OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients are listed.		

National regulations:

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 MSDS:

Promega Corporation
 Environmental Health and Safety Department
 2800 Woods Hollow Road
 Madison, WI
 Ph: (608)274-4330

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 Labeling of Chemicals
 ACGIH: American Conference of Governmental Industrial Hygienists
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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