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# Material Safety Data Sheet

EFFECTIVE DATE: 04/26/2002

High End Systems urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material of the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the products; and (3) request its customers to notify their employees, customers, and other users of the product of this information.

## I. IDENTIFICATION

PRODUCT NAME: "Atmospheres" HQ Light Enhancement Fluid ("Stage" and "Coldflow" formulas contain different percentages of the CAS#'s and a higher percentage of water)

FORMULA: Food grade or high purity grade propylene glycol, triethylene glycol and de-ionized water

## II. PHYSICAL DATA

CAS# 57-55-6 and 112-27-6

BOILING POINT (760 mm Hg):	212-470°F
MELTING POINT:	Not applicable
SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.082 AT 20°C
VAPOR PRESSURE AT 20°C:	<.025mm Hg
VAPOR DENSITY (air=1):	3.9
SOLUBILITY IN WATER:	Complete @ 70°F
EVAPORATION RATE(Butyl Acetate=1):	.003
APPEARANCE AND ODOR:	Water-white liquid; mild odor

## III. INGREDIENTS

This product is a mixture of very low toxicity ingredients which are of high purity or food grade. According to OSHA this product is non-hazardous under (1910.1200). The largest single component of this product is de-ionized water.

## IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	No flash point by Cleveland Open Cup and Penskey-Martin Closed Cup due to the fact that this is primarily a water based formula
AUTOIGNITION TEMP:	Not Determined
FLAMMABLE LIMITS IN AIR % BY VOLUME:	Not Determined
EXTINGUISHING MEDIA:	Water spray or all purpose foams by manufacturers' recommended techniques for large fires. Use CO <sub>2</sub> or dry chemical media for small fires.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

## V. HEALTH HAZARD DATA

TLV AND SOURCE: Occupational exposure limits (PELs or TLVs) have not been established for any of the components of this product in the United States. In England, exposure limits for propylene glycol are: Vapor - 470mg/m<sup>3</sup> 8 hour time weighted average, Particulate - 10mg/m<sup>3</sup> 8 hour time weighted average.

### EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: No evidence of adverse effect for low dose. May cause nausea and vomiting in higher dosage.

INHALATION: No evidence of adverse effects from exposure to recommended levels. Should continuous exposure to high concentrations of fog be required professionally (i.e. fire training), a canister type particle mask designed for 10 to 20 micron filtration should be used.

SKIN CONTACT: May cause minimal irritation of areas exposed to liquid.

EYE CONTACT: If splashed in eyes, may cause minimal irritation seen as slight excess redness of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE: No evidence of adverse effects from available information.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

EYES: Flush with water.

NOTES TO PHYSICIAN: Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

## VI. REACTIVITY DATA

This material is known to be stable and does not react violently with any of the following: Air, Water, Heat, Strong Oxidizers.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Burning under certain conditions can produce aldehydes, ketones, carbon dioxide and / or carbon monoxide.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: None

## VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Small spills should be flushed with large quantities of water. Larger spills should be collected for disposal.

WASTE DISPOSAL METHOD: Dispense as permitted under appropriate Federal and State regulations.

