

# MATERIAL SAFETY DATA SHEET

## SECTION I - PRODUCT IDENTIFICATION

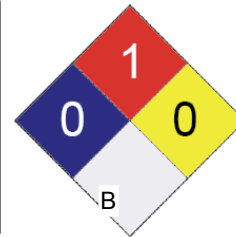
**Product Name:** ***Zero Visibility OIL*** Smoke Fluid  
**Product Use:** Training, Leak Detection, Air Flow Studies, Theatrical Fog  
**Chemical Family:** Petroleum Hydrocarbon Oil  
**Molecular Weight:** Variable.  
**Molecular Formula:** CH<sub>3</sub>[CH<sub>2</sub>]CH<sub>3</sub>

## SECTION II – INGREDIENTS

Common Name            ZV Oil: No Hazardous Ingredients  
 CAS #                      NA: No Hazardous Ingredients  
 (See Section VIII, "Exposure Controls/Personal Protection", for exposure guidelines.)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 0
Flammability	1
Physical Hazard	0
Personal Protection	A



## SECTION III – HAZARDS IDENTIFICATION

**NFPA Code:** Health-0, Flammability-1, Reactivity-0 **HMIS Code:** Health-0, Flammability-1, Reactivity-0  
**Emergency Overview:** This product has been evaluated and does not require any hazard warning on the label under OSHA criteria  
**Potential Health Effects:**  
**EYE CONTACT:** No significant health hazards identified. **SKIN CONTACT:** No significant health hazards identified. **INGESTION:** Negligible effect; may act as a laxative.  
**INHALATION:** No significant health hazards identified

## SECTION IV – FIRST AID MEASURE

**EYE:** Flush immediately with large amounts of water. If irritation occurs, call a physician.  
**SKIN:** Wash exposed area of skin with soap and water. If skin irritation or an allergic reaction occurs, get medical attention.  
**INGESTION:** If symptomatic, call a physician or poison control center promptly.  
**INHALATION:** If adverse effects occur, remove to uncontaminated area. Get medical attention if symptoms persist.

## SECTION V - FIRE AND EXPLOSION DATA

**FLASH POINT:** 280°F (138°C) minimum

**METHOD USED:** Cleveland Open Cup

**FLAMMABLE LIMITS:**

**LEL (% vol. in air):** Not determined.

**UEL (% vol. in air):** Not determined.

**AUTOIGNITION TEMPERATURE:** Not determined.

**FLAMMABILITY CLASSIFICATION:** Slight hazard. Material must be preheated before ignition will occur (OSHA Class IIIB).

**EXTINGUISHING MEDIA:** Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog. Do not use streams of water as this will scatter the liquid and spread the fire. A water spray may be used to keep fire-exposed containers and surroundings cool. **UNUSUAL FIRE AND EXPLOSION HAZARDS:** May create dense smoke during combustion. Mild fire hazard when heated above its flash point.

**FIREFIGHTING EQUIPMENT:** Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

**HAZARDOUS COMBUSTION PRODUCTS:** Incomplete burning can produce carbon monoxide and/or carbon dioxide and other toxic gases.

**SECTION VI – ACCIDENTAL RELEASE MEASURES:** Remove mechanically or contain on an absorbent material such as dry sand or earth. Remove all sources of ignition. Dike around spilled material.

#### **SECTION VII – HANDLING AND STORAGE**

**HANDLING:** No special requirements.

**STORAGE:** Store in a cool, well-ventilated area in sealed containers. Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

#### **SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EYE:** None required; however, use of eye protection is good industrial practice.

**SKIN:** None required; however, use of protective gloves/clothing is good industrial practice.

**INHALATION:** Avoid breathing mist. If ventilation is inadequate, use an NIOSH/MSHA certified respirator that will protect against dust/mist.

**ENGINEERING CONTROLS:** Control airborne concentrations below the exposure guidelines.

**EXPOSURE GUIDELINES:**

**Limits:**

OSHA PEL: 5 mg/m<sup>3</sup> (oil mist) (1989) (1971)

ACGIH TLV-TWA: 5 mg/m<sup>3</sup> (oil mist)

ACGIH TLV-STEL: 10 mg/m<sup>3</sup> (oil mist)

#### **SECTION IX – CHEMICAL AND PHYSICAL PROPERTIES**

**APPEARANCE AND ODOR:** Colorless, oily liquid. Odorless. pH: Not determined.

**VAPOR PRESSURE:** < 1.0 mmHg @ 20°C (68°F)

**VAPOR DENSITY (Air=1):** >1

**BOILING POINT:** Not determined.

**MELTING POINT:** Not determined.

**SOLUBILITY:** Negligible in water (below 0.1%); soluble in hydrocarbons.

**SPECIFIC GRAVITY:** 0.818 - 0.880 @ 25°C/25°C (77°F)

**POUR POINT:** 20°F (-7°C) maximum

## SECTION X – STABILITY AND REACTIVITY

**STABILITY:** Stable.

**CONDITIONS TO AVOID:** Avoid excessive heat and open flames. **MATERIALS TO AVOID:** Avoid chlorine, fluorine, and other strong oxidizers. **HAZARDOUS DECOMPOSITION:** None identified.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION XI – TOXICOLOGICAL INFORMATION

**Acute Toxicity Data:**

**EYE IRRITATION:** Testing not conducted. See Other Toxicity Data. **SKIN IRRITATION:** Testing not conducted. See Other Toxicity Data. **DERMAL** LD<sub>50</sub>: Testing not conducted. See Other Toxicity Data.

**ORAL** LD<sub>50</sub>: Testing not conducted. See Other Toxicity Data. **INHALATION** LC<sub>50</sub>: Testing not conducted. See Other Toxicity Data.

### Other Toxicity Data:

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

A similar product produced a primary eye irritation score (PEIS) of less than 10/110.0 (rabbits), a primary skin irritation score (PDIS) of less than 4.0/8.0 (rabbits), a dermal L1350 greater than 2000 mg/kg (rabbits), and an oral LD50 score greater than 5000 mg/kg (rats). Also, a similar product was not a skin sensitizer when tested.

Oil mist: Repeated exposure to levels of oil mists in excess of the exposure limits may result in accumulation of oil droplets in pulmonary tissue and may lead to irritation of the nose and throat. No adverse health effect is expected to occur at or below the exposure limits.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the

U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

## SECTION XII – ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

## SECTION XIII – DISPOSAL INFORMATION

Disposal must be in accordance with applicable federal, state, or local regulations.

## SECTION XIV – TRANSPORTATION INFORMATION

**U.S. Department of Transportation:** Not regulated.

**International Information:**

**Canadian Transportation of Dangerous Goods:** Not regulated.

## SECTION XV – REGULATORY INFORMATION

**CERCLA Sections 102A/103 Hazardous Substances (40 CFR Part 302.4):** Not reportable.

**SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):** Not regulated.

**SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):** This product is

defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

**SARA Title III Section 313 (40 CFR Part 372):** Not regulated.

**U.S. Inventory (TSCA):** Listed on inventory. All components comply with TSCA.

**OSHA Hazard Communication Standard:** Listed by ACGIH. Listed by OSHA.

**FOOD CONTACT STATUS:**

**FDA:** This product is approved for use by the FDA under the following sections of 21 CFR:

**Part 172.878** as a direct, multipurpose food additive when used in accordance with the specifications of this subpart..

**Part 178.3620** as a component of nonfood articles in contact with food when used in accordance with the specifications of this subpart. -Part 573.680 in animal feed, subject to the provisions of this subpart.

**USDA:**

**H1 Status:** This product is acceptable to the USDA as a lubricant with incidental food contact for use in official meat and poultry establishments.

**3H Status:** This product is acceptable to the USDA for use as a releasing agent on grills, loaf pans, boning blocks or other hard surfaces to help prevent food from adhering during processing.

**SECTION IX - PREPARATION INFORMATION**

**Date:** December 18, 2002 **MSDS Prepared by:** Avatar Corporation

**Contact:** Douglas Olson, President, American Safety & Health Promotions, LTD 434.977.2700

**Disclaimer**

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not applicable and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the mandatory requirements of WHMIS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this form.

The logo for "Smoke Maker" features the word "Smoke" in a large, bold, sans-serif font, with the word "Maker" positioned directly below it in a smaller, bold, sans-serif font. The letters are black and have a slightly distressed or industrial appearance.