

MATERIAL SAFETY DATA SHEET for



LiquiSmoke™

SECTION I Product Identification

TRADE NAME:

Hurco LiquiSmoke™

GENERAL OR GENERIC ID: Hydrotreated Middle Distillate
DOT HAZARD CLASSIFICATION: N/A
CHEMICAL FORMULA: Proprietary
This material is in compliance with the
Toxic Substances Control Act (15 USC 2601—2629).

SECTION II Composition, Information on Ingredients

INGREDIENT: Hydrotreated Middle Distillate
CAS #: 64742-46-7
PERCENT: 100

EXPOSURE INFORMATION

Ingredients	ACGIH TLV	STEL	OSHA Pel	STEL
Hydrotreated Middle Distillate	100 mg/m3	NA	NA	NA

Exposure limits expressed as 8-hour TWA concentrations in either parts per million (ppm), or milligrams per cubic meter (mg/m3).

SECTION III Hazards Identification

ROUTES OF ENTRY

Inhalation: Yes
Skin: Yes
Ingestion: Yes

EXPOSURE EFFECTS

Symptoms of Exposure: Headache, drowsiness, eye, respiratory or skin irritation, nausea, numbness.
Acute Exposure Effects: Ingestion may cause nausea, vomiting and diarrhea.
Chronic Exposure Effects: Dermatitis, pneumonitis & pulmonary edema.

MEDICAL CONDITION

Aggravated by Exposure: NA
Carcinogen Status: No
NTP: No
OSHA: No
IARC: No
CARCINOGENICITY STMT: According to IARC Monographs, severely Hydrotreated oils, such as this product, are not considered carcinogenic. Nevertheless, good industrial hygienic practices are recommended.

SECTION IV First Aid Measures

Emergency and First Aid Procedures
Remove from contaminated atmosphere. Give artificial respiration if not breathing. Remove contaminated clothing. Thoroughly wash affected areas with soap and water. In case of eye contact, flush eyes with water for 10-15 minutes. **SEEK IMMEDIATE MEDICAL CARE.**

If swallowed, **DO NOT INDUCE VOMITING.**

SECTION V Fire and Explosion Data

Flashpoint: 265°F.(129.43°C) COC
Autoignition Temperature: NA
LEL: NA
UEL: NA
Fire Fighting Procedures: SCBA may be required.
Extinguishing Media: CO2, Dry Chemical, Foam
Unusual Fire & Explosion Hazards: Water may cause frothing.

SECTION VI Accidental Release Measures

SPILL/RELEASE INSTRUCTIONS
Eliminate all sources of ignition. Contain with earthen like or petroleum absorbent material. Remove with grounded suction pump to salvage container. Remove all contaminated materials.

SECTION VII Handling & Storage Information

Keep away from all ignition sources (e.g. heat, flame, sparks, strong oxidizers). Bond and ground container.

SECTION VIII Exposure Controls/Personal Protection

Engineering Controls: No
Local Exhaust: To control vapors.
Mechanical Ventilation: For Confined Spaces.
Respiratory Protection: NIOSH approved organic vapor respirator.
Eye Protection: Chemical goggles or face shield.
Glove Protection: PVC/equivalent resistant glove.
Work/Hygienic Practices: Always minimize body contact. Wash areas of body contact promptly. Use a PVC/equivalent resistant apron where splash potential exists.

SECTION IX Physical & Chemical Properties

Physical Appearance: Water white liquid
Product Odor: Negligible
Specific Gravity: <1
Solubility in Water: Insoluble
Boiling Point: 470°F 243.31°C
Freezing Point (F): NA
Melting Point (F): 30°F -1.11°C
Vapor Pressure: <0.1
Reference: mmHg@70°F

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SECTION X Stability & Reactivity Information

Stability: Stable
Hazardous Polymerization: Oxidizers
Materials to Avoid: Heat & Flame
Hazardous Decomposition: Carbon Monoxide and other petroleum decomposition products.

SECTION XI Disposal Consideration

Waste Management: Per Federal, State and local laws.

SECTION IX Transportation Information

Proper Shipping Name: NOT A DOT REGULATED MATERIAL
(Packaging in excess of 3500 gal require an OIL SPILL prevention and response plan per 49 CFR 1).
Hazard Class: NA
UN/NA Number: NA
Packaging Group: NA

All hazard precautions given in this data brochure must be observed. This brochure is for the unburnt LiquiSmoke Only. Test Data is available for LiquiSmoke "smoke" by contacting Hurco Technologies.

LAST ISSUE DATE:
01/10/07

**Questions Concerning LiquiSmoke
(8:00-5:00 Central Time) M-F
Please Call: 1-800-888-1436**

SECTION XIII Regulatory Information

Hazardous under SARA Section a311: Yes
Fire Hazard: No
Sudden Release: No
Immediate: No
Reactive Hazard: No
Delayed: Yes

SARA Section 313 Listed Components: None

SECTION IX Other Information

NFPA 704M Rating

NFPA Fire Code: 1
NFPA Health Code: 1
NFPA Reactivity Code: 0
NFPA Other: Blank

The information contained in this MSDS is believed to be accurate, but is not warranted to be, whether originated with Hurco Technologies or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to the circumstances.

NFPA Key

0 = Insignificant
1 = Slight
2 = Moderate
3 = High
4 = Extreme

SECTION IX Definitions

DOT = Department of Transportation
CAS = Chemical Abstract Service
ACGIH = American Conf. Of Governmental Industrial Hygienists
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value
STEL = Short Term Exposure Limit
PEL = Permissible Exposure Limit
TWA = Time Weighted Average
NTP = National Toxicology Program
IARC = International Agency for Research on Cancer
LEL = Lower Explosion Limit
UEL = Upper Explosion Limit
SCBA = Self Contained Breathing Apparatus
CFR = Code of Federal Regulations
NFPA = National Fire Protection Agency
EPA = Environmental Protection Agency

FOR ADDITIONAL
NON-EMERGENCY MSDS INFORMATION CONTACT:

HURCO
TECHNOLOGIES, INC.

P.O. BOX 70, HARRISBURG, SD 57032
1-800-888-1436
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E-mail: info@gethurco.com

SUPERIOR SIGNAL COMPANY, INC.

MATERIAL SAFETY DATA SHEET

Rev Date: 06/27/02, UN Number: N/A

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1. PRODUCT IDENTIFICATION

Company Address: P. O. Box 96, Spotswood, NJ 08884
Telephone Number: (732) 251-0800
Emergency Phone Number: (732) 251-0800 (24 Hr.)
Chemical Family: Petroleum Hydrocarbon
Trade Name: Superior[®] Sewer Smoke Fluid

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Ingredient		CAS#
Distillates (petroleum), light hydrocracked	100%	64741-77-1

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3. HAZARDS IDENTIFICATION

Emergency Overview:
May cause skin irritation

US OSHA Hazard communication standard: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

Potential Health Effects

Inhalation:

Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat and lungs, respiratory tract.

Eye Contact:

Expected to be minor eye irritant.

Skin Contact:

Repeated or prolonged skin contact may cause dermatitis and defatting.

Ingestion:

Not expected to be acutely toxic.

Chronic:

None known.

HMIS Hazard Ratings:

HEALTH: 0

FLAMMABILITY: 1

REACTIVITY: 0

KEY 4=Severe 3=Serious
2=Moderate 1=Slight
0=Minimal

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4. FIRST AID MEASURES

Inhalation:

Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

Eye Contact:

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

Skin Contact:

Flush with large amounts of water, Use soap if possible. Remove severely contaminated clothing and wash before reuse. If irritation persists seek medical attention.

Ingestion:

If swallowed, DO NOT induce vomiting.

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5. FIRE FIGHTING MEASURES

Flash point (method): 265° F COC
Flammable Limits: NE
Autoignition temp: ND

Extinguishing Media:

Water spray, dry chemical, carbon dioxide (CO2), foam.

Fire Fighting Instructions:

Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

Hazardous Combustion Products:

Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

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6. ACCIDENTAL RELEASE MEASURES

Spills or Leaks:

Remove sources of ignition. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with absorbent pads. Large spills may be taken up with pump or vacuum.

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7. HANDLING AND STORAGE

Storage Temperature
Ambient

Storage Pressure
Atmospheric

General:

Keep container closed. Store in a cool, well-ventilated place. Keep away from heat, sparks and flame. Empty containers may contain residues.

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8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits:

Oil mist if generated: TLV (ACGIH) 5mg/m3 – 8hr TWA,
STEL (ACGIH) 10 mg/m3, PEL (OSHA) 5mg/m3 – 8 hr TWA

Ventilation:

Good general ventilation at source of vapor.

Personal Protection (Fluid):

For open systems where contact is likely, wear safety glasses with side shields, long sleeves and chemical resistant gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Petroleum odor, clear amber liquid
Vapor Pressure:	<1 (air=1.0)
Solubility in Water:	None
Evaporation Rate, n-Bu Acetate =1:	Nil
VOC:	10.5 Wt% 97.65 g/l
Specific Gravity:	0.89 @ 15.6°C

10. STABILITY AND REACTIVITY

Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
None known

Materials to Avoid:
Strong oxidizing agents

Hazardous Polymerization:
Will not occur

Hazardous Decomposition:
None

11. TOXICOLOGICAL INFORMATION

Oral toxicity (rats):	Practically non-toxic (LD50: > 2000 mg/kg).
Dermal Toxicity (rabbits):	Practically non-toxic (LD50: > 2000 mg/kg).
Inhalation Toxicity (rats):	Practically non-toxic (LC50: > 5 mg/l).
Eye irritation (rabbits):	Practically non-irritating (Draize score: >6 but < 16)
Skin irritation (rabbits):	Practically non-irritating (Primary Irritation Index: >0.5 but <3)
Chronic Toxicology:	The base oils in this product are severely solvent refined and/or hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as Modified Ames Test and IP-346.

12. ECOLOGICAL INFORMATION

Ecotoxicity: ND

13. DISPOSAL CONSIDERATIONS

This products is not regulated by CERCLA/RCRA as a hazardous waste material. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations

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14. TRANSPORTATION INFORMATION

DOT		IMO	
Description	NR	Proper shipping name	NR
Proper shipping name		Hazard Class:	NR
Hazard class	NR	Packing Group:	NA
ID number	NR	Special Information	NA
Packing Group	NA	IMO Label	NA
Special Information	NA	Shipping Containers	NA

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15. REGULATORY INFORMATION

TSCA: This material is in compliance with the TOXIC SUBSTANCES CONTROL ACT (15 USC 2601-2629) and is listed in the TSCA Inventory.

Hazard Categories for SARA 311/312 Reporting:

Health	Immediate(Acute)	No
Health	Delayed (Chronic)	No
Physical	Fire	No
Physical	Sudden Release of Pressure	No
Physical	Reactive	No
Physical	Nuisance Mist/Dust Only	No

The following components of this material are found on the regulatory lists indicated.

Distillates, Hydrotreated Light Paraffinics found on lists: ACGIM TWA, ACGIH STEL, OSHA PEL

New Jersey RTK Classification:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 NJSA 34:5A-1 et.seq., the product is to be identified as follows:

PETROLEUM OIL

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Review date 01/04/08

MATERIAL SAFETY DATA SHEET (MSDS)



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Revision Date: 11/1/02
For the following products:
#1A, 2B, 3C White Smoke Candles

SECTION I: MATERIAL IDENTIFICATION

Material Name: *Safe-Vue*TM Smoke Candles
Chemical Family: Screening Smoke
Trade Name: *Safe-Vue*TM Smoke for air flow studies.

UN Number: none
CAS Registry Number: none

SECTION II: INGREDIENTS AND HAZARDS (SMOKE)

Component	Amount	Hazard Data
Hydrated Zinc Chloride	TLV 1 mg/m ³	8-hour, time weighted averages Neither TLV nor PEL is applicable because product is intended for use in short term tests.
Water Condensate	PEL 1 mg m ³	
Carbon Monoxide	-	
All other ingredients are present in negligible amounts and/or are non-hazardous.	55 mg/m ³ 55 mg/m ³	

SECTION III: PHYSICAL DATA (SMOKE)

Boiling Point: n/a
Vapor Pressure: n/a
Vapor Density: n/a
Water Solubility at 20°C: Soluble

pH: No Data

Appearance and Odor: Gray to white with an odor of burning paper.

SECTION IV: FIRE AND EXPLOSION DATA

Flash Point and Method (Smoke): None
Autoignition Temp. (Smoke): n/a
Flammability Limits in Air (Smoke): n/a
Extinguishing Media (Solid Product): Use media suitable for surrounding fire.
Special Fire Fighting Procedures (Smoke and Solid Product): Self-contained breathing apparatus and full protective clothing.
Unusual Fire and Explosion Hazards: None known.

SECTION V: REACTIVITY DATA

Stable: Yes, under normal conditions.
Hazardous Decomposition Products: See section II.
Polymerization: None known.

SECTION VI: HEALTH HAZARD INFORMATION

*Safe-Vue*TM white smoke can be used without hazard if applied as directed. The main effects of the smoke are some minimal irritation of the throat, an awareness of an odd odor, and the appearance of smoke. These effects act as a warning and are desirable to prevent voluntary overexposure. Individuals should be urged not to accept exposures that cause minor irritation, but to leave the area and ventilate well to dissipate the smoke. Persons with respiratory ailments must never be exposed to any smoke. **Warning:** the #10-200 and #10-210 Smoke Grenades generate huge volumes of white smoke that would quickly accumulate to concentrations hazardous in confined spaces. Never use these items in an interior or enclosed space.

Ingestion: Not a significant route of exposure.

Eye Contact: Acute exposure is not likely to induce eye irritation.

Skin Absorption: Not a significant route of exposure.

Inhalation: Acute exposure can cause irritation of the respiratory tract and mucous membranes. Irritation is a warning property of smoke materials. In itself irritation is not usually regarded as a toxic effect unless it is sufficient to cause inflammation and then inflammation, not irritation, is the toxic effect.

Effects of Overexposure: Irritation of the respiratory passages; cough; nausea. Gross overexposure to dense smoke concentrations could result in throat irritation and mucous membrane congestion requiring medical treatment. Coughs, chills, fever and pulmonary edema can result from overwhelming exposure. Increasingly severe overexposure is likely to result in increasingly severe irritation and inflammation to all mucous membranes contacted by the smoke with most severe effects usually appearing in the respiratory tract.

FIRST AID: Remove to fresh air. If breathing is difficult, get medical attention.

SECTION VII: SPILL, LEAK AND DISPOSAL PROCEDURES

(Smoke): Ventilate area. Use local exhaust to keep exposure to a minimum. The duration of smoke would be short and the length of exposure could be reduced further by opening doors and windows for a few minutes, if and when smoke appears.

(Solid Product): Dispose in chemical disposal area in a manner that complies with local, state and federal regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection: See section IV.

Ventilation: Use product in a well-ventilated area.

Protective Gloves:

Other Protective Equipment: Use self-contained breathing apparatus and full protective clothing when treating spills or fighting fires.

SECTION IX: SPECIAL PRECAUTIONS AND COMMENTS

Store in a cool, dry place. Keep product out of the reach of children.

Use only in a well-ventilated place.

Do not use or store around food or food products. Before eating, drinking or smoking, hands and face must be thoroughly washed.

Product should be used only by those familiar with all safety documentation.

This MSDS is provided as a guideline for the use of our products only. E. Vernon Hill, Inc. disclaims responsibility for damage or injury resulting from the improper use of these products. Contact E. Vernon Hill, Inc. for a "Product Information Sheet."

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Ref. S.S. "SD/1A & SD/2A 2/1/93"