

**PRODUCT IDENTITY:** NISSEKI SAS-60E**General Use:** Insulating Fluid for High-voltage Capacitors  
**Product Description:** Blend of Substituted Aromatic Hydrocarbons**SECTION 1 COMPANY IDENTITY****Manufacturer's Name:** NISSEKI CHEMICAL TEXAS INC.  
10500 Bay Area Blvd.  
Pasadena, Texas 77507  
**Emergency Telephone No.** 1-800-424-9300 (CHEMTREC)  
1-800-NISSEKI  
**Date Prepared:** July 14, 2005**SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS****INGREDIENTS:**

Benzyltoluene	36-50%	(CAS No. 27776-01-8)
1,1-Diphenylethane	50-60%	(CAS No. 612-00-0)
1,2-Diphenylethane	< 2%	(CAS No. 103-29-7)
Diphenylmethane	< 4%	(CAS No. 101-81-5)
Epoxide*	< 1%	(CAS No. 2386-87-0)

\*7-Oxabicyclo[4.1.0]hept-3yl methyl-7-oxabicyclo[4.1.0]heptane-3-carboxylate

**SECTION 3 HAZARD IDENTIFICATION****EMERGENCY OVERVIEW****WARNING!** Direct contact with liquid or vapors may cause skin or eye irritation.**POTENTIAL HEALTH EFFECTS****EYE CONTACT:**

May cause transient eye irritation (tears, blurred vision and redness).

**SKIN CONTACT:**

Direct exposure may cause skin irritation (redness, swelling).

**SKIN ABSORPTION:**

A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

**INGESTION**

Single dose oral toxicity is low. Oral LD50 for rats is &gt;2 grams/kg. If aspirated (liquid enters the lung), may cause lung damage due to chemical pneumonia, a condition caused by petroleum and petroleum-like solvents.

**INHALATION:**

In general, overexposure to alkyl-substituted aromatics may produce central nervous depression, headache, dizziness, incoordination, nausea and loss of appetite.

**SECTION 4****FIRST-AID MEASURES****EYE CONTACT:**

Irrigate immediately with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

**SKIN CONTACT:**

Remove all contaminated clothing and wash affected area of skin with soap and water. Get immediate attention if irritation develops and persists.

**INGESTION:**

If swallowed, DO NOT induce vomiting. Seek medical attention immediately.

**INHALATION:**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

**SECTION 5****FIRE AND EXPLOSION DATA****FIRE HAZARD DATA**

FLASH POINT (COC)	139°C (282°F)
AUTOIGNITION TEMPERATURE:	450°C (842°F) (estimated)
EXTINGUISHING MEDIA:	Water fog, CO <sub>2</sub> , Dry Chemical

**SPECIAL FIRE FIGHTING PROCEDURE:**

Firefighter should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus. Water or foam may cause frothing if it gets below the surface of the liquid and turns to steam. Water can be used to cool fire-exposed containers, to protect personnel and to disperse vapors and spills.

**SECTION 6****ACCIDENTAL RELEASE MEASURES****SMALL SPILL:**

Absorb spill with an inert material (e.g. clay, dry sand, or earth), and then place in chemical waste container.

**LARGE SPILL:**

Contain spilled liquid with sand and earth. Transfer absorbed waste material into drums. Prevent runoff from entering into storm sewers and ditches, which lead to natural waterways.

**SECTION 7****HANDLING AND STORAGE INFORMATION****HANDLING:**

Areas of fluid handling should be well ventilated. Avoid contact with eyes. Avoid prolonged or repeated breathing of vapor and contact with skin.

**STORAGE:**

Store in ventilated area, far from open flames and areas where danger of fire exists.

**SECTION 8****EXPOSURE CONTROLS / PERSONAL PROTECTION****SKIN PROTECTION:**

Use impervious gloves and clean, long-sleeved body-covering clothing. Launder contaminated clothing and shoes before reuse.

**EYE PROTECTION:**

Use safety glasses. Where contact with the liquid is likely, chemical goggles (with side shields) are recommended. If vapor exposure causes eye discomfort, use approved respirator.

**VENTILATION:**

Adequate ventilation is essential for handling the fluid. Due to high vapor density, downflowing exhaust ventilation is recommended.

**SECTION 9****PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b>	270-290°C (518-554°F)
<b>VAPOR PRESSURE:</b>	0.00005 psi @ 70°F
<b>VAPOR DENSITY:</b>	6.3 (Air = 1)
<b>SOLUBILITY IN WATER:</b>	5 ppm
<b>SPECIFIC GRAVITY:</b>	1.00 (Water = 1)
<b>MELTING POINT:</b>	-50-55°C (-58-67°F)
<b>APPEARANCE AND ODOR:</b>	Clear non-viscous liquid with aromatic odor

**SECTION 10****STABILITY AND REACTIVITY DATA**

<b>STABILITY:</b>	Stable
<b>INCOMPATIBLE MATERIAL:</b>	Strong oxidizing materials may ignite this material.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Carbon monoxide and asphyxiants.
<b>HAZARDOUS POLYMERIZATION:</b>	Will not occur.

**SECTION 11****TOXICOLOGICAL INFORMATION**

<b>ORAL ACUTE TOXICITY:</b>	LD50, Rat: Male 2.7 gr/kg (14 days) Female 2.2 gr/kg (14 days)
<b>DERMAL ACUTE TOXICITY:</b>	LD50, Rat: Male/Female greater than 2 gr/kg
<b>SKIN SENSITIZATION:</b>	Guinea pig, Bueler: Non sensitizing.
<b>ACUTE DERMAL IRRITATION:</b>	Rabbit: Moderate Irritant
<b>ACUTE EYE IRRITATION:</b>	Rabbit: Minimal Irritant
<b>SUBACUTE TOXICITY:</b>	Rat, Oral, 28 days: No dead at maximum dose (1 gr/kg)

**MUTAGENEICITY:**

NOEL: 50 mg/kg/day  
Ames Test: Negative  
In vivo Mouse Micronucleus Test: Negative

**CARCINOGEN LIST BY NTP, IARC OR OSHA:**

No component of this product present at levels greater than 0.1% is identified as a carcinogen by NTP, IARC or OSHA.

**SECTION 12****ECOLOGICAL INFORMATION**

This material is expected to be bio-degradable at aerobic conditions.

**SECTION 13****DISPOSAL CONSIDERATION**

If discarded in its purchased form, NISSEKI SAS-60E would not be considered as a hazardous waste either by listing or by characteristics under Federal Hazardous Waste Regulations, 40 C.F.R. 261. (in the USA) Please consult state and local requirements for proper disposal.

**SECTION 14****TRANSPORT INFORMATION**

Not a Hazardous Material for DOT shipping.

**SECTION 15****REGULATORY INFORMATION****CERCLA SUPERFUND**

This product contains no Reportable Quantity (RQ) Substance that are currently listed under 40 C.F.R. § 302.4:

**SARA HAZARD CATEGORY**

This product has been reviewed according to EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An Immediate Health Hazard (for skin and/or eye contact).

**SARA 313 INFORMATION**

This product contains no substances that are currently subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 C.F.R. Part 372.

**TOXIC SUBSTANCE CONTROL ACT (TSCA)**

The ingredients of this product are all on the TSCA Inventory list.

**This information relates to the specific material designated and may not be valid for such material used in condition with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness, and**

we do not accept liability for any loss or damage that may occur from the use of this information. Final determination of suitability of any material is the sole responsibility of the user. All material should be used with caution to guard against hazards. Although certain hazards are described herein, we cannot guarantee that these are the only hazards, which exist.