# MATERIAL SAFETY DATA SHEET

## CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**TRADE NAME**
SURE SOL® -100

**CAS NUMBER**
64742-95-6

**MSDS NUMBER**
5052

**PRODUCT CODE**
8600

**SYNONYM(S)**
LIGHT AROMATIC SOLVENT NAPHTHA

**MANUFACTURER / SUPPLIER**
Koch Petroleum Group, LP.

Koch Refining International, PTE., LTD.

PO Box 2608
Corpus Christi, TX 78403

U.S.A.

## TELEPHONE NUMBERS - 24 HOUR EMERGENCY ASSISTANCE

Koch Petroleum Group, LP. 512-241-4811

CHEMTREC: 800-424-9300

## TELEPHONE NUMBERS - GENERAL ASSISTANCE

8-5 (M-F, CST) 800-835-1121

8-5 (M-F, CST) MSDS Assistance 316-828-8488

## COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>Concentration*</th>
<th>Exposure Limits / Health Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIGHT AROMATIC SOLVENT NAPHTHA</td>
<td>64742-95-6</td>
<td>67 - 90 %</td>
<td>SEE CALCULATED EXPOSURE LIMITS BELOW</td>
</tr>
</tbody>
</table>

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<tr>
<th>Ingredient Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYL BENZENE</td>
<td>95-63-6</td>
<td>10 - 45 %</td>
<td>25 ppm 8-Hour TWA (ACGIH)</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>CUMENE</td>
<td>98-82-8</td>
<td>0 - 3 %</td>
<td>50 ppm 8-Hour TWA (OSHA) 50 ppm 8-Hour TWA (ACGIH)</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>XYLENES</td>
<td>1330-20-7</td>
<td>0 - 3 %</td>
<td>100 ppm 8-Hour TWA (OSHA) 100 ppm 8-Hour TWA (ACGIH) 150 ppm 15-Min STEL (ACGIH)</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>BENZENE</td>
<td>71-43-2</td>
<td>Trace</td>
<td>1 ppm 8-Hour TWA (OSHA) 5 ppm 15-Min STEL (OSHA) 0.5 ppm 8-Hour TWA (ACGIH) 2.5 ppm 15-Min STEL (ACGIH)</td>
</tr>
</tbody>
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</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>Trace</td>
<td>200 ppm 8-Hour TWA (OSHA) 50 ppm 8-Hour TWA (ACGIH)</td>
</tr>
</tbody>
</table>

*Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

## CALCULATED EXPOSURE LIMITS

The exposure limit of 40 ppm for this hydrocarbon mixture is a calculated value. The exposure limit was calculated using the UK Reciprocal Calculation Procedure.
HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HEALTH HAZARDS
WARNING!
MAY CAUSE CARDIAC SENSITIZATION
ASPIRATION HAZARD IF SWALLOWED-CAN ENTER LUNGS AND CAUSE DAMAGE
OVEREXPOSURE MAY CAUSE CNS DEPRESSION
MAY BE IRRITATING TO THE SKIN, EYES AND RESPIRATORY TRACT
POTENTIAL REPRODUCTIVE HAZARD

FLAMMABILITY HAZARDS
COMBUSTIBLE
PER OSHA GUIDELINES, 29 CFR 1910.1200(c)

REACTIVITY HAZARDS
STABLE

POTENTIAL HEALTH EFFECTS, SKIN
SLIGHTLY IRRITATING. Contact may cause reddening, itching and inflammation. Repeated or prolonged skin contact may cause reddening, itching and inflammation. Defatting agent.

No significant effects are expected to occur following short term exposure. Repeated or prolonged contact with large amounts of this material may result in absorption through the skin to produce toxic effects.

POTENTIAL HEALTH EFFECTS, EYE
SLIGHTLY IRRITATING. Exposure to vapors, fumes or mists may cause irritation. Direct contact may cause irritation, redness, tearing and blurred vision. Prolonged or repeated exposure may cause irritation and conjunctivitis.

POTENTIAL HEALTH EFFECTS, INHALATION
SLIGHTLY TOXIC. Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs. Symptoms may include sore throat, coughing, labored breathing, sneezing and burning sensation, depending on the concentration and duration of exposure.

May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

May cause cardiac sensitization, including arrhythmias (irregular heart beats) and death due to cardiac arrest.

Chronic exposure to high doses may damage the peripheral nerves, resulting in numbness or tingling in the extremities.

Overexposure to this material may cause systemic damage including target organ effects listed under "Special Toxic Effects."

Other specific symptoms of exposure are listed under "Special Toxic Effects."

POTENTIAL HEALTH EFFECTS, INGESTION
MODERATELY TOXIC. May cause irritation of the mouth, throat and gastrointestinal tract. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

Aspiration into lungs may cause chemical pneumonia and lung damage.

Exposure may also cause central nervous system symptoms similar to those listed under "Inhalation" (see Inhalation section).

Overexposure to this material may cause systemic damage including target organ effects listed under "Special Toxic Effects."
SPECIAL TOXIC EFFECTS
Acute or chronic overexposure to this material or its components may cause systemic toxicity, including adverse effects to the following: kidney, liver, spleen, adrenals, thymus and central nervous system.

Exposure may cause the following specific symptoms, depending on the concentration and duration of exposure: anemia, pallor, anxiety and loss of appetite.

This product contains components which may cause adverse reproductive and/or developmental effects. Pregnant women may be at an increased risk from exposure. Consumption of alcoholic beverages may enhance toxic effects.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as solvent or painter's syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

Pre-existing medical conditions which may be aggravated by exposure include disorders of the skin, kidney, liver, cardiovascular and respiratory systems.

4 FIRST AID MEASURES

SKIN
Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Place contaminated clothing in closed container for storage until laundered or discarded. If clothing is to be laundered, inform person performing operation of contaminant's hazardous properties. Discard contaminated leather goods.

EYE
Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

INHALATION
Remove to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure airway is clear and give oxygen.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION
Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be performed only by qualified medical personnel.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

NOTES TO PHYSICIAN
Gastric lavage may be indicated if ingested. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

In cases of acute poisoning, artificial respiration with administration of oxygen may be useful for support. DO NOT GIVE EPINEPHRINE, EPHEDRINE OR SIMILAR ADRENERGIC DRUGS. THEY MAY INDUCE FATAL VENTRICULAR FIBRILLATION. Electrocardiographic monitoring should be carried out with severely ill patients to anticipate possible cardiac arrest.

Anemia may require the usual supportive measures. Medical evaluation of acute overexposure should include hematological determinations until stable. In severe acute and chronic poisoning, both renal and hepatic damage may occur and should be anticipated in such cases. Respiratory and pulmonary problems may require special attention. After severe acute symptoms have been alleviated, it may be advisable to consider periodic monitoring of the patient until such time as the likelihood of other adverse effects can be discounted.

5 FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS
Combustion may produce COx, NOx, SOx and irritating vapors.
EXTINGUISHING MEDIA
Use water spray, dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.

BASIC FIRE FIGHTING PROCEDURES
Evacuate area and fight fire from a safe distance.

If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak.

Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage tank due to fire.

Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

UNUSUAL FIRE & EXPLOSION HAZARDS
Vapors may form explosive mixture with air. Vapors can travel to a source of ignition and flash back.

Explosion hazard if exposed to extreme heat or to physical or thermal shock.

Fires involving this product may release COx, NOx, SOx and irritating vapors.
Flash Point 107 F (41.7 C) TAG CLOSED CUP
Autoignition Temperature 865.4 F (463 C)
Flammability Limits in Air, Lower, % by Volume ND
Flammability Limits in Air, Upper, % by Volume ND

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION
Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. (See Exposure Controls/Personal Protection in Section 8.)

ENVIRONMENTAL PRECAUTIONS
Eliminate all sources of ignition. Isolate hazard area and deny entry.

If product is released to the environment, take immediate steps to stop and contain release. Caution should be exercised regarding personnel safety and exposure to the released product. Notify local authorities and the National Response Center, if required.

SPILL OR LEAK PROCEDURE
Keep ignition sources out of area and shut off all ignition sources. Absorb spill with inert material (e. g. dry sand or earth) then place in a chemical waste container. Large Spills: Dike far ahead of liquid spill for later disposal. Stop leak when safe to do so.

See Exposure Controls/Personal Protection (Section 8).

7 HANDLING & STORAGE

HANDLING
Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

Do not eat, drink or smoke in areas of use or storage.

STORAGE
Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid contact with strong oxidizers.

Empty containers may contain product residue. Do not reuse without adequate precautions.

Do not eat, drink or smoke in areas of use or storage.
EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS
Ventilation and other forms of engineering controls are the preferred means for controlling exposures.

EYE PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)
Wear chemical safety goggles and face shield. Have eye washing facilities readily available where eye contact can occur.

SKIN PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)
Avoid skin contact with this material. Use appropriate chemical protective gloves when handling.

Use good personal hygiene.

RESPIRATORY PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)
A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

9 PHYSICAL & CHEMICAL PROPERTIES

ODOR AND APPEARANCE
CLEAR, COLORLESS LIQUID WITH A MODERATE, AROMATIC ODOR

Boiling Point 300 F (148.9 C)
Specific Gravity 0.87 - 0.879 AT 60/60 F (15.6/15.6 C)
Melting Point ND
Percent Volatile ND
Vapor Pressure < 10 mmHg AT 68 F (20 C)
Vapor Density 3.5
Bulk Density ND
Solubility in Water NEGLIGIBLE
Octanol/Water Partn ND
Volatile Organic ND
Pour Point ND
pH Value ESSENTIALLY NEUTRAL
Freezing Point ND
Viscosity ND
Evaporation Rate VERY SLOW
Molecular Formula NA
Molecular Weight ND
Chemical Family HYDROCARBON MIXTURE
Odor Threshold ND

10 STABILITY & REACTIVITY

STABILITY/INCOMPATABILITY
Incompatible with oxidizing agents. See precautions under Handling & Storage (Section 7).

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS
Combustion may produce COx, NOx, SOx and irritating vapors.

TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA
See Special Toxic Effects (Section 3).

ND = No Data
NA = Not Applicable
Printed On 1/15/99

Material Id 5052 Trade Name SURE SOL® - 100
12 ECOLOGICAL INFORMATION
ECOTOXICOLOGICAL INFORMATION
ND

DISPOSAL CONSIDERATIONS
WASTE DISPOSAL
This product, as supplied, when discarded or disposed of, is a hazardous waste according to Federal Regulations (40 CFR 261) due to its ignitability and benzene content. Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine, at the time of disposal, whether the material is a hazardous waste subject to RCRA.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state and local regulations.

14 TRANSPORT INFORMATION
BILL OF LADING - BULK (U. S. DOT)
Petroleum Distillates, N.O.S. (Naphtha Solvent), 3, UN1268, PG III, RQ, (Mixed Xylenes, Cumene), Marine Pollutant, (1,2,4-Trimethylbenzene)

U. S. Department of Transportation (DOT) Requirements
General Transportation Information for Bulk Shipments

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Petroleum Distillates, N.O.S. (Naphtha Solvent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Packaging Group</td>
<td>PG III</td>
</tr>
<tr>
<td>Labels Required</td>
<td>Flammable Liquid, Marine Pollutant</td>
</tr>
<tr>
<td>Placards Required</td>
<td>Flammable Liquid, UN1268, Marine Pollutant</td>
</tr>
<tr>
<td>Reportable Quantity</td>
<td>See Regulatory Information (Section 15)</td>
</tr>
</tbody>
</table>

General Transportation Information for Non-Bulk Shipments

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Petroleum Distillates, N.O.S. (Naphtha Solvent)</th>
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<tbody>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Packaging Group</td>
<td>PG III</td>
</tr>
<tr>
<td>Labels Required</td>
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<td>Reportable Quantity</td>
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</table>

A petroleum product can be reclassified as a Combustible Liquid for U.S. ground transportation if it meets all the requirements of 49 CFR 173.150.
REGULATORY INFORMATION

FEDERAL REGULATIONS
All known major components of this product are listed on the TSCA Inventory and/or are otherwise in compliance with TSCA.

Consult OSHA's Benzene standard 29 CFR 1910.1028 for provisions on air monitoring, employee training, medical monitoring, etc.

This product, as supplied, contains benzene, mixed xylenes, toluene and cumene all of which are regulated as hazardous substances per 40 CFR Part 302.4. The reportable quantities for these components are 10, 100, 1000 and 5000 pounds, respectively. Any release of this product that results in a release of these components equal to or exceeding the reportable quantities must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR Part 302.6 and 40 CFR 355.40. Failure to report may result in substantial civil and criminal penalties. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations.

This product contains one or more components designated as hazardous substances or toxic pollutants pursuant to the Federal Clean Water Act (40 CFR 116.4 Table A; 40 CFR 401.15). Any unpermitted introduction of this product into a facility stormwater or wastewater discharge may constitute a violation of the Clean Water Act. Facilities must notify the appropriate permitting agency prior to introducing this product into the aforementioned discharges.

This product contains one or more substances listed as hazardous, toxic or flammable air pollutants under Section 112 of the Clean Air Act. This product contains up to 100% volatile organic compounds (VOCs) per 40 CFR Part 51.100. This product contains up to 3.5% hazardous air pollutants (HAPs) per Section 112 Clean Air Act Amendments of 1990.

There may be specific regulations at the local, regional or state/provincial level that pertain to this product.

STATE REGULATIONS
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

This product, as sold, meets the requirements of the Model Toxics Legislation of the Coalition of Northeastern Governors (CONEG). Any alteration of this product may affect its compliance with this law.

SARA TITLE III RATINGS
Immediate Hazard Delayed Hazard Fire Hazard Pressure Hazard Reactivity Hazard

NFPA RATINGS
Health Flammability Reactivity Special Hazards
2 2 0

HMIS RATINGS
Health Flammability Reactivity
2 2 0

Following ingredients of this product are listed in SARA313

<table>
<thead>
<tr>
<th>SARA Listed Ingredient Name</th>
<th>CAS Number</th>
<th>Maximum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>45.0</td>
</tr>
<tr>
<td>CUMENE</td>
<td>98-82-8</td>
<td>3.0</td>
</tr>
<tr>
<td>XYLENES</td>
<td>1330-20-7</td>
<td>3.0</td>
</tr>
</tbody>
</table>

16 OTHER INFORMATION

DISCLAIMER
NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, MSDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.