1. IDENTIFICATION

CAS #: 8052-41-3

SYNONYMS:
Naphtha, stoddard solvent, mineral spirits, white spirit

GENERIC CHEMICAL NAME:
Naphtha, high paraffinic, stoddard solvent, naphtha solvent

PRODUCT TYPE:
Substance

2. HAZARDS IDENTIFICATION

APPEARANCE:
COLORLESS LIQUID

ODOR:
PETROLEUM SOLVENT

SIGNAL WORD:
WARNING!
FLAMMABLE LIQUID AND VAPOR
STATIC ACCUMULATING LIQUID CAN BECOME ELECTROSTATICALLY
IN BONDED AND GROUNDED EQUIPMENT; SPARKS MAY IGNITE LIQUID
AND VAPOR MAY CAUSE FLASH FIRE
HARMFUL IF SWALLOWED, CAN ENTER LUNGS AND CAUSE DAMAGE
MAY CAUSE CHRONIC EFFECTS
MAY CAUSE SKIN IRRITATION
MAY CAUSE EYE IRRITATION
MAY CAUSE RESPIRATORY TRACT IRRITATION
PROLONGED SKIN CONTACT MAY CAUSE IRRITATION

EXPOSURE ROUTES:
INHALATION, INGESTION, SKIN AND/OR EYE CONTACT

PHYSICAL:
KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINER
TIGHTLY CLOSED. USE ONLY WITH ADEQUATE VENTILATION.
AVOID SPARK PROMOTERS. GROUND/BOND CONTAINER AND
EQUIPMENT. THESE ALONE MAY BE INSUFFICIENT TO REMOVE
STATIC ELECTRICITY

EYES:
AVOID CONTACT WITH EYES. WASH THOROUGHLY AFTER HANDLING
SKIN: AVOID CONTACT WITH SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING

SYMPTOMS OF OVEREXPOSURE: IRRITATION TO EYES, NOSE, THROAT; DIZZINESS; DERMATITIS; CHEMICAL PNEUMONITIS (aspiration liquid)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: PRE-EXISTING DISORDERS INVOLVING ANY TARGET ORGANS MENTIONED IN THIS MSDS ARE BEING AT RISK MAY BE AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT.

CHRONIC EFFECTS:

3. COMPOSITION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>COMPONENT</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8052-41-3</td>
<td>STODDARD SOLVENT</td>
<td>100</td>
</tr>
</tbody>
</table>

HAZARDOUS CONSTITUENT(S) CONTAINED IN COMPLEX SUBSTANCES

<table>
<thead>
<tr>
<th>CAS #</th>
<th>COMPONENT</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4</td>
<td>ETHYL BENZENE</td>
<td>0.1</td>
</tr>
<tr>
<td>111-84-2</td>
<td>NONANE</td>
<td>1.0-8.0</td>
</tr>
<tr>
<td>25551-13-7</td>
<td>TRIMETHYL BENZENE</td>
<td>0.5-5.0</td>
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<tr>
<td></td>
<td>(mixed isomers)</td>
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</tbody>
</table>

Component Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Stoddard solvent, Ethyl Benzene, Nonane, Trimethyl Benzene (See Section 8)

4. FIRST AID MEASURES

EYES
Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

SKIN
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

INHALATION:
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

INGESTION:
DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water. Get medical attention immediately.

NOTE TO PHYSICIANS
No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
5. FIRE FIGHTING MEASURES

Flammable Properties
This product is a flammable static accumulating liquid. Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Restrict flow velocity to avoid build-up of static charge. Refer to NFPA 77, API 2003, and CENELEC CLC/TR 50404 for further guidance.

Extinguishing Media
Use dry chemical, CO2, water spray (FOG) or foam

Specific Hazards Arising from Chemical
Elevated temperatures can lead to the formation of irritating fumes and vapors. Decomposition products may include the following materials: Carbon dioxide and Carbon monoxide.

Protective Equipment and Precautions for Firefighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental Precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.

Methods for Containment
Stop leak if without risk.

Methods for Cleanup
Move containers from spill area. Approach release from upwind. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling Procedures
Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

Shipping and Storing Procedures
Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous. Do not reuse container.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoddard Solvent</td>
<td>TWA: 100ppm</td>
<td>TWA: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 2900 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES
Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.

Appearance: Colorless
Odor: Petroleum solvent
Physical State: Liquid
Flash Point (f): 105
Boiling Point (f): >310
Vapor Pressure (mm Hg at 20°C): 0.62
Water Soluble: NO

ENGINEERING CONTROLS
This product is a static accumulating liquid. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

EYE/FACE PROTECTION
Chemical goggles or face shield

SKIN PROTECTION
Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

RESPIRATORY PROTECTION
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

GENERAL HYGIENE
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

NIOSH REL: TWA: N/A ppm TWA: 350 mg/m³
NIOSH Ceiling: 1800 mg/m³ [15 minute]

Ethyl Benzene
ACGIH TLV: TWA: 20 ppm TWA: N/A mg/m³
OSHA PEL: TWA: 100 ppm TWA: 435 mg/m³

Nonane
ACGIH TLV: TWA: 200 ppm

Trimethyl Benzene (all isomers)
ACGIH TLV: TWA: 25 ppm

N/A signifies not available.
Specific Gravity (g/cc): .77
Density (lbs/gal) 6.4
PH: Not available

10. STABILITY AND REACTIVITY
Stability: Stable under normal conditions. If heated, product’s static accumulation will rise and could cause flash fire.
Polymerization: No polymerization
Incompatibility: Strong acids and oxidizing materials
Conditions to Avoid: High temperatures, sparks, flames
Hazardous Decomposition Products: Does not decompose at ambient temperatures

11. TOXICOLOGICAL INFORMATION
Acute Exposure
Minimally toxic. Negligible hazards at ambient/normal handling temperatures.

Respiratory Irritation
If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials.

Eye Irritation
May cause eye irritation. Vapors formed from heating may cause eye irritation.

Skin Irritation
May cause skin irritation

Sensitization
Not expected to cause skin or respiratory sensitization.

Component Analysis – LD50 / LC50
Acute Toxicity Estimate (ATE) Values for Product:

Inhalation LC50 Rat 21 mg/L 1 HR
Oral LD50 Rat >7000 mg/kg
Dermal LD50 Rabbit >2000 mg/kg

Chronic Exposure

Target Organ Effects
Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. Prolonged or repeated direct exposure to the skin results in symptoms of irritation and redness, dermatitis or oil acne.
Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Carcinogenicity
Contains Ethyl Benzene which is considered a carcinogen under IARC. It has caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

Mutagenicity
No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

Reproductive Toxicity
No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

Teratogenicity
No data available to indicate product or any components contained at greater than .1% may cause birth defects.

12. ECOLOGICAL INFORMATION
Component Analysis- Ecotoxicity – Aquatic Life

<table>
<thead>
<tr>
<th>Duration/Test/Species</th>
<th>Concentrations/Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50</td>
<td>N/A mg/L</td>
</tr>
</tbody>
</table>

Pimephals promelas

Degradability: Not determined
Bioaccumulation: Not determined
Soil Mobility: Not determined

13. DISPOSAL CONSIDERATIONS
Disposal Instructions
The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. TRANSPORT INFORMATION
EMERGENCY RESPONSE GUIDE NUMBER: 128

U.S. DOT BULK (OVER 119 GALLONS)

UN 1268, PETROLEUM DISTILLATES, N.O.S. (Naphtha solvent), 3, PG III, combustible liquid

Bulk container must be labeled on two opposing sides

U.S. DOT Non-bulk (under 119 gallons)
Not regulated.....Exempt from labeling and placarding unless shipped via Air or Vessel

*Truck/Rail car must be placarded on all 4 sides if aggregate gross weight exceeds 1,000 pounds

15. REGULATORY INFORMATION
SARA Extremely Hazardous
Substances (Sections 302 & 304)
This product does not contain greater than 1% of any “extremely hazardous substances” listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Section 313
This product contains the following components in concentrations greater than 0.1% for carcinogenic substances and/or 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Ethyl Benzene (CASRN: 100-41-4): 0.1%
1,2,4 Trimethylbenzene (CASRN: 95-63-6): 2.7%

SARA Section 311 & 312 Classifications
Acute Hazard: NO
Chronic Hazard: YES
Fire Hazard: YES
Reactivity Hazard: NO

CERCLA
This product contains the following components listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4:
Ethyl Benzene (CASRN: 100-41-4): 0.1% RQ=1,000 lbs.

CALIFORNIA PROP 65
This product contains chemical(s) known to the state of California to cause cancer and/or birth defects.

Clean Water Act / Oil Pollution Act
This product may be subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

PA RIGHT TO KNOW ACT
This product contains the following components listed under the Pennsylvania Right To Know Act:
Stoddard Solvent (CASRN: 8052-41-3)
N-Decane (CASRN: 124-18-5)
N-Nonane (CASRN: 111-84-2)
1,2,4 Trimethylbenzene (CASRN: 95-63-6)
Ethyl Benzene (CASRN: 100-41-4)

Global Chemical Inventories

<table>
<thead>
<tr>
<th>INVENTORY</th>
<th>COMPONENT</th>
<th>ALL COMPONENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>US TSCA</td>
<td>Present*</td>
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</tr>
<tr>
<td>EU</td>
<td>Present</td>
<td></td>
</tr>
<tr>
<td>JAPAN</td>
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<td>AUSTRALIA</td>
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<td>CHINA</td>
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<tr>
<td>TAIWAN</td>
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</tbody>
</table>

*May be subject to TSCA 12b export notification. Contains Nonane (CASRN: 111-84-2) at 7.85%.
16. OTHER INFORMATION

US NFPA Ratings

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>INSTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tbody>
</table>

HIMIS RATINGS

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>PHYSICAL HAZARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Precautionary Labels

Signal Word
WARNING!
Flammable liquid and vapor
Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment; Sparks may ignite liquid and vapor may cause flash fire
Harmful if swallowed, can enter lungs and cause damage
May cause chronic effects
May cause skin irritation
May cause eye irritation
May cause respiratory tract irritation
Prolonged skin contact may cause irritation

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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