G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME:----------> Mineral Spirits Regular

PRODUCT NUMBER(S)----------> 203300

TRADE NAMES/SYNONYMS----> Nonexempt Mineral Spirits; Low boiling point naphtha; Petroleum Distillates; Stoddard Solvent; White Spirits

CAS-No: 8052-41-3 CHEMICAL FAMILY: Aliphatic Hydrocarbon

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST
RECOMMENDED USE: Industrial: Cleaning and Extraction solvent, House-hold care products, Degreasing solvent, Use in electronics, Use as Solvent for coatings.
USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: G.J. CHEMICAL CO., INC.
Address: 40 VERONICA AVENUE
SOMERSET, NJ 08873
Telephone: 1-973-589-1450
Fax: 1-973-589-3072

1.4 Emergency Telephone Number
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)
Flammable liquids (Category 3), H226
Acute Toxicity: Inhalation (Category 4), H332
Skin corrosion/irritation (Category 2), H315
Carcinogenicity - Category 2, H351
Serious eye damage/eye irritation (Category 2B), H319
Specific target organ toxicity - single exposure (Category 3), Narcotic effects, H336

Specific target organ toxicity – repeated exposure (Category 2), Central Nervous System, H373
Aspiration hazard (Category 1), H304
Acute Aquatic Toxicity (Category 2), H401
Chronic Aquatic Toxicity (Category 2), H412

2.2 GHS Label elements, including precautionary statements

Pictogram

GHS02 GHS08 GHS07 GHS09

Signal word DANGER

Hazard statement(s)
H226 Flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if Inhaled
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)
Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P301 + P310+ 331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/Physician. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + 313 If eye irritation persists: Get medical attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391 Collect spillage.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS –
Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire or explosion. Prolonged or repeated contact may dry skin and cause irritation.

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Stoddard Solvent	8052-41-3	90+	Flammable liquids (Category 3), H226
	EC-No.232-489-3		Acute Toxicity Inhalation (Category 4), H332
	Index-no. 649-345-00-4		Skin corrosion/irritation (Category 2), H315
	Reg.-No. 01-2120261965-45-XXXX		Serious eye damage (Category 2B), H319
			Carcinogenicity (Category 2), H351
			STOT-SE (Category 3), Narcotic Effects,
			H336
			STOT-RE (Category 2), Central Nervous
			system, H373
			Aspiration hazard (Category 1), H304
			Acute Aquatic Toxicity (Category 2), H401
			Chronic Aquatic Toxicity (Category 2), H412
Components:			

C9-C15 Cycloakanes	mixture	30-60
C9-C15 Alkanes	mixture	10-30
C9-C15 Aromatics	mixture	10-30
Ethylmethylbenzenes	25550-14-5	3-7
Trimethylbenzene,	25551-13-7	3-7
1,2,4-trimethylbenzene	95-63-6	1-5
Nonane	111-84-2	.5-1.5
Xylenes, mixed isomers	1330-20-7	.5-1.5
Cumene	98-82-8	<0.5
Ethylbenzene	100-41-4	<0.5

3.2 MIXTURE: Not applicable

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: MINERAL SPIRITS REGULAR

***FIRST AID*- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

SKIN CONTACT: MINERAL SPIRITS REGULAR

***FIRST AID*- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts or water until no evidence of chemical remains (approximately 15-20 minutes). Do not use ointments. Get medical attention immediately.**

EYE CONTACT: MINERAL SPIRITS REGULAR

***FIRST AID*- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Get medical attention immediately.**

INGESTION: MINERAL SPIRITS REGULAR

***FIRST AID*- Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If victim is drowsy or unconscious, place on the left side with head down.**

Immediately consult a physician or poison control center, treat symptomatically.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
Eye: Causes serious eye irritation;
Skin: Irritating including redness, burning and drying. The degree of irritation depends on the amount of material applied to skin and the time until it is removed.
Inhalation: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Can cause central nervous system (CNS) depression. Symptoms are loss of appetite, muscle weakness, dizziness, and drowsiness.
Ingestion: If swallowed, this material may irritate the mucous membranes of the mouth, throat and esophagus. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. It can be readily absorbed by the stomach and intestinal tract.
Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney, liver, skin, respiratory system and central nervous system.
Medical Conditions Aggravated by Exposure: Skin contact may aggravate an existing dermatitis and people with chronic respiratory conditions. Significant exposure may adversely affect people with pre-existing heart disorders making them more susceptible to irregular heartbeats.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Note to physicians: Exposure to high concentrations of this material may be associated with cardiac arrhythmias. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias. Other drugs with less arrhythmogenic potential should be considered. If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5. FIRE FIGHTING MEASURES

Flash Point: 42°C (107.6°F) (TCC) **LEL %:0.6**
Auto-ignition: 230 to 240°C (446 to 464°F) **UEL %:8.0**
UNIFORM FIRE CODE: Combustible Liquid Class II

5.1 SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Above flash point, vapor-air mixtures are explosive within flammable limits. Closed containers may explode when exposed to extreme heat. Liquid floats on water.

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not enter fire area without structural fire fighter's protective equipment including NIOSH/MSHA approved self-contained breathing apparatus (SCBA) in positive pressure mode. Use water spray to knock down vapors. Use halon, carbon dioxide extinguisher or dry powder for small fires. Large fires are best controlled by alcohol foam, fog, and water spray. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. However, water can cause frothing and/or may not extinguish the fire. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire (1990 Emergency Response Guidebook, DOT P 1800.5, guide page 26). Extinguish only if fire can be stopped. Use flooding amounts of water as a fog; solid streams may be ineffective. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors; keep upwind. If fire is uncontrollable or containers are exposed to direct flame, water may be ineffective (NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1991). Fire fighters should wear full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus (SCBA) with full face-piece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Do Not Use: Water in straight hose stream will scatter and spread fire and should not be used.

Shut off source. Water fog may be used to cool closed containers to prevent

pressure build up and possible auto ignition or explosion when exposed to extreme heat. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Flammable Liquid; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
Methods for cleanup and containment:
Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.
Methods for disposal:
Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Liquid quickly evaporates and forms vapor (fumes), which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

HYGIENE: 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.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and

grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25°C. DANGER! Do not open containers unless contents are at room temperature 25°C (77°F) or below. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Do not take internally. Storage class (TRGS 510): Flammable liquids

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Stoddard Solvent	8052-41-3	90-100	212ppm TWA (ACGIH)
	EC-No.232-489-3		
	Index-no. 649-345-00-4		
	Reg.-No. 01-2120261965-45-XXXX		
Components:			
C9-C15 Cylcoalkanes	mixture	30-60	400ppm TWA (ACGIH)
C9-C15Alkanes	mixture	10-30	200ppm TWA (ACGIH)
C9-C15 Aromatics	mixture	10-30	400ppm TWA (ACGIH)
Nonane	mixture		200ppm TWA (ACGIH)
Trimethylbenzene,	25551-13-7	3-7	25ppm TWA (ACGIH)
1,2,4-trimethylbenzene	95-63-6	1-5	25ppm TWA (ACGIH)
Xylenes, mixed isomers	1330-20-7	.5-1.5	100ppm TWA (ACGIH)

		|	|150ppm STEL (ACGIH)
		|	|100ppm PEL (OSHA)
Cumene	98-82-8	| 0.1-1	|50ppm TWA (ACGIH)
		|	|50ppm PEL (OSHA)
Ethylbenzene	100-41-4	| 0.1-1	|20ppm TWA (ACGIH)
		|	|100ppm TWA (NIOSH)
		|	|100ppm PEL (OSHA)

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For known vapor concentrations use a NIOSH/MSHA air purifying respirator with full face-piece and organic vapor cartridge for exposures >1 <10 times ACGIH TWA. For exposures greater than 10 times ACGIH TWA of for unknown vapor concentrations use positive pressure self-contained breathing apparatus with full face-piece. Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION: Avoid skin contact with liquid. Employee must wear appropriate protective gloves to prevent contact with this substance. Use nitrile, neoprene, polyethylene, or fluoroelastomer rubber chemical resistant gloves.

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.

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Mineral Spirits Regular 8052-41-3

APPEARANCE:	**Clear liquid**
COLOR:	**Colorless**
ODOR:	**Characteristic hydrocarbon solvent**
ODOR THRESHOLD:	**No data available**
pH:	**No data available**
MOLECULAR WEIGHT:	**No data available**
MELTING POINT:	**No data available**
BOILING POINT:	**157 to 218°C (314.6 to 424.4°F)**
SPECIFIC GRAVITY:	**0.793**
DENSITY (25°C):	**0.793 g/ml (20°C)**
VAPOR PRESSURE:	**0.22mmHg @ 20°C (68.0°F)**
VAPOR DENSITY:	**4.5 - 5**
WATER SOLUBILITY:	**Negligible**
PARTITION COEFFICIENT N-OCTANOL/WATER	**No data available**
FLASH POINT:	**42°C (107.6°F) - closed cup**
EVAPORATION RATE (BUTYL ACETATE=1):	**0.16**
UPPER FLAMMABILITY LIMIT:	**8.0% (V)**
LOWER FLAMMABILITY LIMIT:	**0.6% (V)**
AUTO INGNITION TEMPERATURE:	**230 to 240°C (446 to 464°F)**
DECOMPOSITION TEMPERATURE:	**No data available**
VISCOSITY:	**No data available**
EXPLOSIVE PROPERTIES:	**No data available**
OXIDIZING PROPERTIES:	**No data available**

9.2 OTHER INFORMATION:

Bulk Density	**6.61lbs/gal.**

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable ( ) Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

HAZARDOUS POLYMERIZATION: May occur ( ) Will not occur (X)

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as caustic soda, liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Copper or copper alloys.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide and Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Causes serious eye irritation;

Skin> Irritating including redness, burning and drying. The degree of irritation depends on the amount of material applied to skin and the time until it is removed.

Inhalation> Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Can cause central nervous system (CNS) depression. Symptoms are loss of appetite, muscle weakness, dizziness, and drowsiness.

Ingestion> If swallowed, this material may irritate the mucous membranes of the mouth, throat and esophagus. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. It can be readily absorbed by the stomach and intestinal tract.
Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney, liver, skin, respiratory system and central nervous system.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis and people with chronic respiratory conditions. Significant exposure may adversely affect people with pre-existing heart disorders making them more susceptible to irregular heartbeats.

ACUTE TOXICITY:
C9-C15 Alkanes: In animal studies utilizing mineral spirits containing up to 22% aromatics indicated that the acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects is not clear.

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rabbit)	Inhalation LC50
Nonane all isomers	N.D.	N.D.	3200ppm/4hr
Trimethyl benzene	8970mg/kg		
1,2,4Trimethyl-benzene	5000mg/kg		18000mg/m3/4hr
Xylenes	4300mg/kg		6700ppm/4hr
Cumene	2900mg/kg	12300µL/kg	10000mg/m3/7hr
Ethylbenzene	3500mg/kg	>5000mg/kg	

SKIN CORROSION/IRRITATION: C9-C15 Alkanes: Primary dermal irritation studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderate skin irritation particularly with evaporation from the skin is prevented.

SERIOUS EYE DAMAGE/EYE IRRITATION: No information available

RESPIRATORY OR SKIN SENSITIZATION: C9-C15 Alkanes: In animal studies utilizing mineral spirits containing up to 18%, aromatics skin sensitization is not evident.

MUTAGENIC EFFECTS: C9-C15 Alkanes: In vivo and in vitro studies on mineral spirits containing up to 22 % aromatics indicate that these products are not genotoxic.

CARCINOGEN STATUS
C9-C15 Alkanes: The National Toxicology Program (NTP) conducted two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenic activity in female rats. Further, there was equivocal evidence of carcinogenic activity in female mice (hepatocellular adenoma) but no

evidence of carcinogenic activity in male mice. A low carcinogenic potential is suggested

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylenes, mixed isomers	-	3	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-

REPRODUCTIVE TOXICITY: C9-C15 Alkanes: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

TERATOGENICITY: C9-C15 Alkanes: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System):
Narcotic Effects: Components
C9-C15 Cycloalkanes;
C9-C15 Alkanes;
C9-C15 Aromatics
Nonane all isomers;
Trimethylbenzene all isomers).

Respiratory Tract: Components
Trimethylbenzene all isomers
1,2,4-Trimethylbenzene;
Cumene;
Ethylbenzene

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System):
Central Nervous System: Components
Trimethylbenzene all isomers

Hearing Organs: Components
Xylene

ASPIRATION HAZARD: All components may be fatal if swallowed and enter airways.
C9-C15 Cycloalkanes;
C9-C15 Alkanes;
C9-C15 Aromatics
Nonane all isomers;
Trimethylbenzene all isomers).
Cumene

Ethylbenzene

11.2 ADDITIONAL DATA: No data available

12. ECOLOGICAL INFORMATION

12.1 AQUATIC TOXICITY:
Trimethylbenzene, all isomers -
LC50 Acute Crustaceans – Palaemonetes pugio; 5600 µg/l Marine water 48hr

1,2,4-Trimethylbenzene -
LC50 Acute Fish - Pimephales promelas; 7720 µg/l Fresh water 96hr
LC50 Acute Fish - Tilapia zillii; 22.4 mg/l Fresh water 96hr
LC50 Acute Crustaceans - Cancer magister – Zoea; 17000 µg/l Marine water 48hr
LC50 Acute Crustaceans – Elasmopus pectenicrus; 4910 µg/l Marine water 48hr

Xylenes, mixed isomers -
LC50 Acute Fish - Lepomis macrochirus –Juvenile;15700 µg/l Fresh water 96hr
LC50 Acute Fish - Lepomis macrochirus;19000 µg/l Fresh water 96hr
LC50 Acute Fish - Carassius auratus;16940 µg/l Fresh water 96hr
LC50 Acute Crustaceans – Palaemonetes pugio8500 µg/l Marine water 48hr

Cumene -
LC50 Acute Fish - Oncorhynchus mykiss; 2700 µg/l Fresh water 96hr
EC50 Acute Daphnia - Daphnia magna –Neonate;10600 µg/l Fresh water 48hr
EC50 Acute Crustaceans - Artemia sp. –Nauplii;7400 µg/l Fresh water 48hr
EC50 Acute Algae – Pseudokiechneriella subcapitata; 2600µg/l Fresh Water

Ethylbenzene –
LC50 Acute Fish - Oncorhynchus mykiss;4200 µg/l Fresh water 96hr
EC50 Acute Daphnia - Daphnia magna –Neonate;2930 µg/l Fresh water 48hr
EC50 acute Crustaceans – Americamysis bahia;5200 µg/l Marine water 48hr
EC50 Acute Algae – Pseudokirchneriella subcapitata;3600 µg/l Fresh water 96hr

12.2 PERSISTANCE AND DEGRADABILITY: No data available

12.3 BIOACCUMULATIVE POTENTIAL: Has potential to be bio-accumulative.

Product/ingredient name	Log Pow	Potential	Bio-concentration Factor
C9-C15 Aromatics	2.8 to 6.5	high	BCF: 99-5780 high
Nonane,	5.65	Low	BCF: 105 low
Trimethylbenzene,	3.4 to 3.8	Low	BCF: --
1,2,4-Trimethylbenzene	3.63	Low	BCF: 243 low
Xylenes, mixed isomers	3.12	Low	BCF: 8.1-25.9 low
Cumene	3.55	Low	BCF: 35.48 low
Ethylbenzene	3.6	Low	BCF: --

Biological Oxygen Demand (BOD): No data available

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvB:
PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID numbers are: D001 and D018
If the waste is a spent solvent, the appropriate spent solvent code should be used.
DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials

Land Transport (DOT)
14.1 USDOT ID Number----------> UN1268
14.2 USDOT Shipping Name----------> Petroleum Distillates, n.o.s. (Naphtha Solvent)
`14.3 USDOT Hazard Classification------> 3 (Flammable Liquid)
USDOT Label Codes----------> 3
14.4 USDOT Package Code----------> III
14.5 Marine Pollutant----------> No
14.6 Special precautions for user--------> Yes
Emergency Response Guide--------> 128
Reportable quantity 11223.3 lbs. / 5095.4 kg

Sea Transport (IMDG)
14.1 ID Number----------> UN1268
14.2 Proper shipping name----------> PETROLEUM DISTILLATES, N.O.S. (Naphtha Solvent)
14.3 Hazard Classification----------> 3 (Flammable Liquid))
Label Codes----------> 3
14.4 Package Code----------> III
14.5 Marine Pollutant----------> No
14.6 Special precautions for user----------> Yes
EMS-Number----------> F-E, S-E

Air Transport (IATA)
14.1 ID Number----------> UN1268
14.2 Proper shipping name----------> Petroleum distillates, n.o.s. (Naphtha Solvent)
14.3 Hazard Classification----------> 3 (Flammable Liquid)
Label Codes----------> 3
14.4 Package Code----------> III
14.5 Environmental hazard----------> No
14.6 Special precautions for user----------> Yes

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed
SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed; components listed: 1,2,4 Trimethylbenzene CAS 95-63-6 <5%; Ethylbenzene CAS 100-41-4 <1% Low Level Components: Cumene 1%; Toluene <0.01%; Benzene <0.001%; Naphthalene <0.1%

SECTION 311/312: Hazard Categorization (40 CFR 370)- Acute Health Hazard, Chronic Health Hazard, Fire Hazard

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not listed

SECTION 101(14) Reportable Quantity: Reportable quantity 11223.3 lbs.

Massachusetts Right to Know Components
Stoddard Solvent CAS 8052-41-3

Pennsylvania Right to Know Components
Stoddard Solvent CAS 8052-41-3

New Jersey Right to Know Components
Stoddard Solvent CAS 8052-41-3

California Prop. 65 Components
This product does contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm at no more than 1%. Cumene 1%; Ethylbenzene 1%; Toluene <0.01%; Benzene <0.001%; Naphthalene <0.1%

TSCA (Toxic Substance Control Act)
Stoddard Solvent CAS 8052-41-3; 1,2,4-Trimethylbenzene CAS 95-63-6; Ethylbenzene CAS 100-41-4; All low level components are listed on the TSCA Inventory.
TSCA 12(b) one-time export: nonane

Form R Reporting:	**%**
1,2,4-trimethylbenzene 95-63-6	**<3**
ethylbenzene 100-41-4	**<0.2**

International Inventories: All components are listed or exempted.

Country or Region	**Inventory Name**	**On inventory yes/no**
Australia	Australian Inventory of Chemical Substances	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals Substances (EINECS) if purchased in Europe.	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Mexico	National Inventory of Chemical Substances (INSQ)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	**Yes**
United States & Puerto Rico	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)
Hazard Rating:

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

NFPA RATINGS (SCALE 0-4): Health=1 Fire=2 Reactivity=0
HMIS RATINGS(SCALE 0-4): Health=1 Fire=2 Reactivity=0 PPE=G

Hazard statement(s) from Section 2 and 3:
H226 Flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if Inhaled
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

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Prepared by----------> T.G. Fenstermaker Jr.

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygenists
AIHA - American Industrial Hygiene Association
ANSI - American Nation Standards Institute
API - American Petroleum Institute
CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
DOT - U.S. Department of Transportation
EC-50 - Effective Concentration
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency For Research On Cancer
LD-50 - Lethal Dose
MAK - Germany Maximum Concentration Values
MSHA - Mine Safety and Health Administration
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)
NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990
OSHA - U.S. Occupational Safety & Health Administration

PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System