

Rolling Meadows, IL 60008

CITGO Petroleum Corporation 3-11-11
1701 Golf Rd., Ste. 1-1101
Rolling Monday 11

CERTIFICATE OF ANALYSIS

Customer: BARTON SOLVENTS INC (SOLVENTS)

Date: 03/11/2011

Cust. Mat.#:

Tank No.: 610

Product: NITRATION GRADE TOLUENE

Order No.: 227012916

Material No.: 7307

P.O. No.: BT6197

PROPERTY DESCRIPTION	TANK VALUE*	SPECIFICATIONS**	UNITS	ASTM TEST
ACID WASH COLOR, ACID PHASE	0	2 MAX		D-848
ACID WASH COLOR, OIL PHASE	PASS	NO CHANGE		D-848
ACIDITY	NEUTRAL	NO FREE ACID		D-847
API GRAVITY (60/60 F)	30.8	REPORT	DEG API	D-287
APPEARANCE	PASS	Cir, Sed/Haze Free		
BENZENE CONTENT	<0.01	0.09 MAX	WT%	GC
COLOR, SAYBOLT	30	+28 MIN		D-156
COLOR,PT-CO.	5	20 MAX		D-1209
COPPER CORROSION	1 (A)	1 (B) MAX		D-849
DENSITY @ 60 F (15.6 C)	7.26	REPORT	LB/GAL	D-287
DISTILLATION RANGE	0.6	1.0 MAX	DEGC	D-850
DISTILLATION, IBP	110.2	109.6-110.6	DEGC	D-850
DISTILLATION, DP	110.8	110.6-111.6	DEGC	D-850
ETHYL BENZENE	0.04	REPORT	WT%	GC
REFR. INDEX (TYPICAL@25C)	1.4941	REPORT		D-1218
SPECIFIC GRAVITY (60/60 F)	0.8718	.869873		D-287(cal'd)
SULFUR AS H2S/SO2	PASS	NEGATIVE		D-853
SULFUR CONTENT	<1	10 MAX	PPM	D-5453
TOLUENE CONTENT	99.89	99.8 MIN	WT%	GC
TOTAL C9 AROMATICS	<0.01	REPORT	WT%	GC
TOTAL NON-AROMATICS	0.03	REPORT	WT%	GC
WATER CONTENT	36	REPORT	PPM	D-1364
m-XYLENE	0.02	REPORT	WT%	GC
o-XYLENE	<0.01	REPORT	WT%	GC
p-XYLENE	0.02	REPORT	WT%	GC

James Bruce

Technical Authorization (847) 734 - 7630

^{*} Unless otherwise stated on this certificate, data represents most recent test values from shipping tank samples. A tank value of zero may mean pass or yes and a value of -1 may mean negative; ** Specifications column above includes CITGO sales specifications and/or customer requirements.



Toluene Material Safety Data Sheet

TGO Petroleum Corporationات 1701 Golf Road, Suite 1-1101 Rolling Meadows, IL 60008-4295

MSDS No.

07307

Revision Date

6/18/2007

IMPORTANT: This MSDS is prepared in accordance with 29 CFR 1910.1200. Read this MSDS before transporting, handling, storing or disposing of this product and forward this information to employees, cu

istomers and users	of this product.	
Emergency (Overview	

Physical State Liquid.

Color

Transparent, colorless.

Odor

Sweet, pungent aromatic

hydrocarbon.

WARNING:

Flammable liquid; vapor may cause flash fire.

Harmful or fatal if swallowed - Can enter lungs and cause damage.

Mist or vapor can irritate the respiratory tract.

Liquid contact can cause eye or skin irritation.

Overexposure can cause central nervous system (CNS)

depression and/or other target organ effects.

Breathing high concentrations can cause irregular heartbeats which may be fatal.

Hazard Rankings					
•	нміѕ	NFPA			
Health Hazard	* 2	2			
Fire Hazard	3	3			
Reactivity	0	0			
*= Chronic Health Hazard					

Protective Equipment

Minimum Recommended See Section 8 for Details









SECTION 1. PRODUCT IDENTIFICATION

Trade Name

Toluene

Technical Contact

(800) 967-7601

(8am - 4pm CT M-F)

Product Number

07307

Medical Emergency

(832) 486-4700

CAS Number

108-88-3

CHEMTREC Emergency (United States Only)

(800) 424-9300

Product Family

Petroleum hydrocarbon solvent

Synonyms

Toluol; C7 Alkylbenzene; C7 Aromatic Hydrocarbon Solvent; High-purity Toluene; Methylbenzene; Reagent-grade Toluene (meets ASTM D-841 "Nitration Grade"

Specifications); TDI-grade Toluene; Petroleum hydrocarbon solvent;

Former product code(s): 2170 and 19170;

CITGO® Material Code: 07307

SECTION 2. COMPOSITION

Component Name(s) Toluene

CAS Registry No.

Concentration (%)

108-88-3

>99

SECTION 3. HAZARDS IDENTIFICATION

Iso see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Skin contact. Inhalation.

Signs and Symptoms of Acute Exposure

Continued on Next Page

Page Number: 1

Toluene				
Inhalation	Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.			
Eye Contact	This material can cause eye irritation with tearing, redness, or a stinging or burning feeling. Further, it can cause swelling of the eyes with blurred vision. Effects may become more serious with repeated or prolonged contact.			
Skin Contact	become more se of this material a	skin irritation with redness and/or an itching or burning feeling. Effects may erious with repeated or prolonged contact. It is likely that some components are able to pass into the body through the skin and may cause similar effects g or swallowing it.		
Ingestion	intestinal upset we during swallowin leading to chronic similar to those d	material may be harmful. Swallowing this material may cause stomach or vith pain, nausea, and/or diarrhea. This material can get into the lungs g or vomiting. Small amounts in the lungs can cause lung damage, possibly c lung dysfunction or death. Swallowing this material may cause effects lescribed in the inhalation section (see "inhalation" above).		
Chronic Health Effects Summary		f ingestion and subsequent aspiration into the lungs may cause ing cavity) formation and chronic lung dysfunction.		
	irreversible brain	sociated repeated and prolonged occupational overexposure to solvents with and nervous system damage (sometimes referred to as "Solvent or me"). Intentional misuse by deliberately concentrating and inhaling this tarmful or fatal.		
	laboratory animal product, has been long-term chemic associated with ir	a component) may cause harm to the human fetus based on tests with s. Prolonged or repeated overexposure to toluene, a component of this a associated with reproductive effects in experimental animals and in al abuse situations. Long-term overexposure to toluene has been apaired color vision. Also, long-term overexposure to toluene in ronments have been associated with hearing damage.		
	See Toxicological	Information (Section 11)		
Conditions Aggravated by Exposure	Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Respiratory System, Liver, Kidneys, Central Nervous System (CNS), Heart (Cardiac), auditory system			
Target Organs	May cause damage to the following organs: kidneys, lungs, liver, mucous membranes, heart, upper respiratory tract, skin, auditory system, central nervous system (CNS), eye, lens or comea			
Carcinogenic Potential	This product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.			
OSHA Hazard Classifica the product does not ex 1910.1200).	ition is indicated hibit the hazard	by an "X" in the box adjacent to the hazard title. If no "X" is present, as defined in the OSHA Hazard Communication Standard (29 CFR		
OSHA Health Hazard Classification		OSHA Physical Hazard Classification		

OSHA Ha the produ 1910.1200	ict doe	lassification is inserted in the last the last last last last last last last last	ndicated hazard	I by an "X" in the as defined in the	box ac OSHA	ijacent to the haz Hazard Commur	ard title	e. If no "X" is p Standard (29 (resent, CFR
OSHA Health Hazard Classification		OSHA Physical Hazard Classification							
Irritant Toxic Corrosive	x	Sensitizer Highly Toxic Carcinogenic		Combustible Flammable Compressed Gas	X	Explosive Oxidizer Organic Peroxide		Pyrophoric Water-reactive Unstable	

ECTION 4. FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation

Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

Eye Contact

Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.

Skin Contact

Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.

Ingestion

Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

Notes to Physician

INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.

This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administion of sympathomimetic drugs should be avoided.

INGESTION: 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.

SECTION 5. FIRE FIGHTING MEASURES

NFPA Flammability Classification

NFPA Class-IB flammable liquid.

Flash Point

Closed cup: 4°C (40°F). (Tagliabue.)

Lower Flammable Limit AP 1.2 %

Upper Flammable Limit AP 7 %

Autoignition

536°C (997°F)

Temperature

Products

Hazardous Combustion Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons, aldehydes and other products of incomplete combustion.

Special Properties

Flammable Liquid! This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media

Continued on Next Page Page Number: 3

SMALL FIRE: Use dry chemicals, carbon dioxide, foam, or inert gas (nitrogen). Carbon dioxide and inert gas can displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces.

LARGE FIRE: Use foam, water fog, or water spray. Water May Be Ineffective. Water may not extinguish the fire. Water fog and spray are effective in cooling containers and adjacent structures. However, water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition or explosion. DO NOT use a solid stream of water directly on the fire as the water may spread the fire to a larger area.

Protection of Fire Fighters

Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities of potential fire and explosion hazard if liquid enter sewers or waterways.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

Flammable Liquid! Release causes an immediate fire or explosion hazard. Evacuate all non-essential personnel from immediate area and establish a "regulated zone" with site control and security. A vapor-suppressing foam may be used to reduce vapors. Eliminate all ignition sources. All equipment used when handling this material must be grounded. Stop the leak if it can done without risk. Do not touch or walk through spilled material. Remove spillage immediately from hard, smooth walking areas. Prevent spilled material from entering waterways, sewers, basements, or confined areas. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material.

For large spills, secure the area and control access. Prevent spilled material from entering sewers, storm drains, other drainage systems, and natural waterways. Dike far ahead of a liquid spill to ensure complete collection. Water mist or spray may be used to reduce or disperse vapors; but, it may not prevent ignition in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard. Verify that responders are properly HAZWOPER-trained and wearing appropriate respiratory equipment and fire-resistant protective clothing during cleanup operations. In an urban area, cleanup spill as soon as possible; in natural environments, cleanup on advice from specialists. Pick up free liquid for recycle and/or disposal if it can be accomplished safely with explosion-proof equipment. Collect any excess material with absorbant pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all applicable local, state and federal laws and regulations.

SECTION 7. HANDLING AND STORAGE

Handling

A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Do not contact with oxidizable materials. Do not breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do not take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Follow proper entry procedures, including compliance with 29 CFR 1910.146 prior to entering confined spaces such as tanks or pits. Use gloves constructed of impervious materials and protective clothing if direct

MSDS No.

07307

Revision Date

6/1*8/*2007

Continued on Nevt Page

Page Number: 4

contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Use appropriate respiratory protection when concentrations exceed any established occupational exposure level (See Section 8). Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.

A static electrical charge can accumulate when this material is flowing through pipes, nozzles or filters and when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather conditions. Always bond receiving containers to the fill pipe before and during loading. Always keep nozzle in contact with the container throughout the loading process. Do not fill any portable container in or on a vehicle. Do NOT use compressed air for filling, discharging or other handling operations.

Product container is not designed for elevated pressure. Do not pressurize, cut, weld, braze-solder, drill, or grind on containers. Do not expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain product residues that can ignite with explosive force. Observe label precautions. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

Storage

Store and transport in accordance with all applicable laws. Keep containers tightly closed and store in a cool, dry, well-ventilated place, plainly labeled, and out of closed vehicles. Keep away from all ignition sources. Ground all equipment containing this material. Containers should be able to withstand pressures expected from warming and cooling in storage. This flammable liquid should be stored in a separate safety cabinet or room. A refrigerated room is preferable for materials with a flash point temperature lower than 70°F (21°C). All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ingineering Controls

Provide ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. All electrical equipment should comply with the National Electric Code. An emergency eye wash station and safety shower should be located near the work-station.

Personal Protective Equipment Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.



Eve Protection

Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Chemical goggles should be worn during transfer operations or when there is a likelihood of misting, splashing, or spraying of this material. A suitable emergency eye wash water and safety shower should be located near the work station.

Hand Protection

Avoid skin contact. Use heavy duty gloves constructed of chemical resistant materials such as Viton®. Wash hands with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners.

Body Protection

Avoid skin contact. Wear long-sleeved fire-retardant garments (e.g., Nomex®) while working with flammable and combustible liquids. Additional chemical-resistant protective gear may be required if splashing or spraying conditions exist. This may include an apron, boots and additional facial protection. If product comes in contact with clothing, immediately remove soaked clothing and shower. Promptly remove and discard contaminated leather goods.

Continued on Next Page Page Number: 5

Respiratory Protection For known vapor concentrations above the occupational exposure guidelines (see below). use a NIOSH-approved organic vapor respirator if adequate protection is provided. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134). For airborne vapor concentrations that exceed the recommended protection factors for organic vapor respirators, use a full-face, positive-pressure, supplied air respirator. Due to fire and explosion hazards, do not enter atmospheres containing concentrations greater than 10% of

the lower flammable limit of this product.

General Comments

Warning! Use of this material in spaces without adequate ventilation may result in generation of hazardous levels of combustion products and/or inadequate oxygen levels for

breathing. Odor is an inadequate warning for hazardous conditions.

Occupational Exposure Guidelines

Substance

Applicable Workplace Exposure Levels

Toluene

ACGIH (United States). Skin TWA: 20 ppm 8 hour(s). OSHA (United States). TWA: 200 ppm 8 hour(s).

CEIL: 300 ppm

PEAK: 500 ppm 1 times per shift, 10 minute(s).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES (TYPICAL)

Physical State

Liquid.

Color

Transparent,

Odor

Sweet, pungent aromatic

colorless.

Vapor

hydrocarbon. AP3 (Air = 1)

Specific Gravity

0.87 (Water = 1)

pН

Not Applicable.

Density

AP -95°C (AP -139°F)

Boiling Range

109 - 111° C (228 - 231° F)

Melting/Freezing Point

Vapor Pressure

3.2 kPa (24 mm Hg) (at 20°C)

Volatility

872 g/I VOC (w/v)

Solubility in

Water

Very slightly soluble in cold water. (<0.1 % w/w)

Viscosity

(cSt @ 40°C)

Flash Point

Closed cup: 4°C (40°F). (Tagliabue.)

Additional **Properties** Paraffin, Isoparaffin and Cycloparaffin Hydrocarbons Content = <1 Wt.% (ASTM D-1319);

Aromatic Hydrocarbon Content = >99 Wt. % (ASTM D-1319);

Average Density at 60°F = 7.26 lbs./gal. (Calculated via ASTM D-287); Aniline Cloud Point Temperature = 48°F (8.9°C) (ASTM D-611);

Kauri-Butanol (KB) Value = 105 (ASTM D-1133);

Dry Point Temperature = 231°F (111°C) (ASTM D-86, D-850 or D-1078);

Evaporation Rate = 1.9 (n-Butyl acetate = 1.0);

Heat Value = 18,314 Btu per pound Odor threshold = 2 to 5 ppm in air

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Stable.

Hazardous Polymerization Not expected to occur.

Conditions to Avoid

Keep away from heat, flame and other potential ignition sources. Keep away from strong

oxidizing conditions and agents.

Materials

Incompatibility

Strong acids, alkalies, and oxidizers such as liquid chlorine, other halogens, hydrogen peroxide and oxygen.

Hazardous

Decomposition

No additional hazardous decomposition products were identified other than the combustion

products identified in Section 5 of this MSDS. **Products**

MSDS No.

07207

Revision Date

C/4 0/2007

Continued on Next Done

Dago Number: 6

ECTION 11. TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data

Toluene

Effects from Acute Exposure:

Deliberate inhalation of toluene at high concentrations (e.g., glue sniffing and solvent abuse) has been associated with adverse effects on the liver, kidney and nervous system and can cause CNS depression, cardiac arrhythmias and death. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects.

Effects from Repeated or Prolonged Exposure:

Studies of workers indicate long-term exposure may be related to impaired color vision and hearing. Some studies of workers suggest long-term exposure may be related to neurobehavioral and cognitive changes. Some of these effects have been observed in laboratory animals following repeated exposure to high levels of toluene. Several studies of workers suggest long-term exposure may be related to small increases in spontaneous abortions and changes in some gonadotropic hormones. However, the weight of evidence does not indicate toluene is a reproductive hazard to humans. Studies in laboratory animals indicate some changes in reproductive organs following high levels of exposure, but no significant effects on mating performance or reproduction were observed. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Findings in laboratory animals were largely negative. Positive findings include small increases in minor skeletal and visceral malformations and developmental delays following very high levels of maternal exposure. Studies of workers indicate long-term exposure may be related to effects on the liver, kidney and blood, but these appear to be limited to changes in serum enzymes and decreased leukocyte counts. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland following very high levels of exposure. The relevance of these findings to humans is not clear at this time.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Environmental Fate

Biodegradability: Rapidly biodegradable in aerobic conditions.

Partition Coefficient (log Kow): 2.7

Photodegradation: Based on similar materials, this product will have a significant tendency to partition to air. Hydrocarbons from this product which do partition to air are expected to rapidly photodegrade.

Stability in Water: Degradation of this product in water occurs primarily by microbial action.

Distribution: Principally to air.

SECTION 13. DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is be responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

MSDS No. 07307 Revision Date 6/18/2007 Continued on Next Page Page Number: 7

Maximize material recovery for reuse or recycling. If discarded, Toluene is regulated by US EPA as a listed hazardous waste (U220). It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specfic disposal issues.

SECTION 14. TRANSPORT INFORMATION

The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

US DOT Status

A U.S. Department of Transportation (DOT) regulated material.

r roper omppi

Proper Shipping Name RQ, Toluene, 3, UN1294, PG II

Hazard Class

3

Packing Group UN/NA Number Ш

UN1294

Reportable Quantity

RQ 1000 lbs. [Based upon maximum Toluene concentration of 100% and an RQ of 1000 lbs.]

Placard(s)



Emergency Response

130

Guide No.

MARPOL III Status

Not a DOT "Marine Pollutant" per 49 CFR

171.8.

SECTION 15. REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substances Control Act (TSCA)

inventory.

SARA 302/304
Emergency Planning and Notification

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 311/312 Hazard Identification

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories:

fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

SARA 313 Toxic Chemical Notification and Release Reporting This product contains the following components in concentrations above *de minimis* levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA:

Toluene [CAS No.: 108-88-3] Concentration: >99%

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are:

Toluene [CAS No.: 108-88-3] RQ = 1000 lbs. (453.6 kg) Concentration: >99% Benzene [CAS No.: 71-43-2] RQ = 10 lbs. (4.536 kg) Concentration: <0.1%

Continued on Nevt Page Page Number 8

Xylene, all isomers [CAS No.: 1330-20-7] RQ = 100 lbs. (45.36 kg) Concentration: <0.1%

'ean Water Act

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

California Proposition 65 This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Toluene: >99% Benzene: <0.1% Ethylbenzene: <0.1%

New Jersey Right-to-Know Label For New Jersey R-T-K labeling requirements, refer to components listed in Section 2.

Additional Remarks Federal Hazardou

Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains Toluene which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: DANGER: Contains Toluene! Harmful or fatal if swallowed! Call Physician Immediately. Vapor Harmful! KEEP OUT OF REACH OF CHILDREN!

SECTION 16. OTHER INFORMATION

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

EVISION INFORMATION

.ersion Number

Revision Date

5.2

6/18/2007

ABBREVIATIONS

AP: Approximately EQ: Equal >: Greater Than <: Less Than NA: Not Applicable ND: No Data NE: Not Establishe

ACGIH: American Conference of Governmental Industrial Hygienist: AIHA: American Industrial Hygiene Association

IARC: International Agency for Research on Cancer NTP: National Toxicology Program

NIOSH: National Institute of Occupational Safety and Health OSHA: Occupational Safety and Health Administration

NPCA: National Paint and Coating Manufacturers Association HMIS: Hazardous Materials Information System

NFPA: National Fire Protection Association EPA: US Environmental Protection Agency

DISCLAIMER OF LIABILITY

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED REGARDING ITS CORRECTNESS. SOME INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE SUBSTANCE ITSELF. THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE, AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT SSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.