

Distributed by: The Science Company Part Numbers: NC-11486, NC-13133, X1003

Material Safety Data Sheet

CITGO Petroleum Corporation 1701 Golf Road, Suite 1-1101 Rolling Meadows, IL 60008-4295

MSDS No.

07306

Revision Date

11/7/2008

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, customers and users of this product.

_		_	
-marc	IDNCV		rvidw
Emerg	lei i e A		1 4 1 6 44

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.

Can cause eye, skin or respiratory tract 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.

Harmful to aquatic organisms.

Hazard Rankings

HMIS NFPA **Health Hazard** * 2 2 Fire Hazard 3 3

0

0

* = Chronic Health Hazard

Protective Equipment

Minimum Recommended See Section 8 for Details



Reactivity







SECTION 1. PRODUCT IDENTIFICATION

Trade Name Technical Contact Xylene (847) 734-7699

(8am - 4pm CT M-F)

Product Number Medical Emergency 07306 (832) 486-4700

CAS Number CHEMTREC Emergency (800) 424-9300 Mixture.

(United States Only)

Product Family Petroleum hydrocarbon solvent

Xylol; Mixed Xylenes; Xylene Isomers and Ethylbenzene; Dimethylbenzenes and Synonyms

Ethylbenzene; C8 Alkylbenzenes; C8 Aromatics; C8 Aromatic Hydrocarbon Solvent; Industrial-

grade Xylene (meets ASTM D-364 Specifications);

"Ten-degree" Xylene (meets ASTM D-846 Specifications).

Former product code(s): 2173 and 19173

CITGO® Material Code: 07306

SECTION 2. COMPOSITION

Component Name(s) Xylene, all isomers Ethylbenzene Toluene

CAS Registry No.

1330-20-7 100-41-4 108-88-3

Concentration (%)

60 - 100 10 - 30 <1

Distributed by: The Science Company

Part Numbers: NC-11486, NC-13133, X1003

SECTION 3. HAZARDS IDENTIFICATION

Also 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

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 May cause mild skin irritation with redness and/or an itching or burning feeling. Effects may

> become more serious with repeated or prolonged contact. It is likely that some components of this material are able to pass into the body through the skin and may cause similar effects

as from breathing or swallowing it.

Ingestion Swallowing this material may be harmful. Swallowing this material may cause stomach or

intestinal upset with pain, nausea, and/or diarrhea. This material can get into the lungs during swallowing or vomiting. Small amounts in the lungs can cause lung damage, possibly leading to chronic lung dysfunction or death. Swallowing this material may cause effects

similar to those described in the inhalation section (see "inhalation" above).

Chronic Health Effects Summary

Prolonged and/or repeated contact may cause skin irritation and inflammation. Symptoms

include defatting, redness, blistering, lesions, and scaly dermatitis.

Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

Reports have associated repeated and prolonged occupational overexposure to light petroleum products with irreversible 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.

Prolonged or repeated overexposure to xylene, a component of this product, has been associated with hearing damage in laboratory animals.

This material (or a component) may cause harm to the human fetus based on tests with laboratory animals. This material, or a component of this material, has been shown to cause cancer in laboratory animals. The relevance of this to humans is not clear.

See Toxicological Information (Section 11)

by Exposure

Conditions Aggravated 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)

May cause damage to the following organs: blood, kidneys, lungs, liver, mucous membranes, **Target Organs**

heart, upper respiratory tract, skin, auditory system, central nervous system (CNS), eye, lens

or cornea

Carcinogenic Potential This material contains ethylbenzene at concentrations at or above 0.1%. Ethylbenzene is

considered possibly carcinogenic to humans by IARC (Group 2B) based on laboratory animal

studies.

)	Xylene				Science Compa 11486, NC-131	
OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).											
OSHA Health Hazard Classification				OSHA Physical Hazard Classification							
Irritant Toxic Corrosive	X	Sensitize Highly T Carcinog	oxic		Combustible Flammable Compressed	Gas	ox	plosive idizer ganic Peroxide	 	Pyrophoric Water-reactive Unstable	
SECTION 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.											
bre bre			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.									
knee anyth			knees. If anything b	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. Administration of sympathomimetic drugs should be avoided.								
			pneumoni and/or gas	tis haza stric lav	ard. Inductior age. If patier	n of emesis nt is obtund	is not ed, pr	recommende otect the airw	ed. Consider ay by cuff	n and chemical der activated ch ed endotrachea ral decubitus po	al

SECTION 5. FIRE FIGHTING MEASURES

NFPA Flammability Classification

NFPA Class-IC flammable liquid.

Flash Point

Closed cup: 27°C (81°F).

Lower Flammable Limit AP 1 %

Upper Flammable Limit AP 7 %

Distributed by: The Science Company Part Numbers: NC-11486, NC-13133, X1003

Autoignition AP 432°C (810°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

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 nonessential 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.

Distributed by: The Science Company Part Numbers: NC-11486, NC-13133, X1003

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. Avoid contact with oxidizing agents. 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 contact is anticipated. 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.

Non-equilibrium conditions may increase the fire hazard associated with this product. 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 confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. Carefully review operations that may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigation efforts, including bonding and grounding. 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 material residues which can ignite with explosive force. Observe label precautions.

Keep container tightly closed. Store in a cool, dry, well-ventilated area. Store only in approved containers. Do not store with oxidizing agents. Do not store at elevated temperatures or in direct sunlight. Protect containers against physical damage. Head spaces in tanks and other containers may contain a mixture of air and vapor in the flammable range. Vapor may be ignited by static discharge. Storage area must meet OSHA requirements and applicable fire codes. Additional information regarding the design and control of hazards associated with the handling and storage of flammable and combustible liquids may be found in professional and industrial documents including, but not limited to, the National Fire Protection Association (NFPA) publications NFPA 30 ("Flammable and Combustible Liquid Code"), NFPA 77 ("Recommended Practice on Static Electricity") and the American Petroleum Institute (API) Recommended Practice 2003, ("Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents").

Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

Storage

Distributed by: The Science Company

Part Numbers: NC-11486, NC-13133, X1003

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering 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 Electrical 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.



Eye 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.

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

Xylene, all isomers ACGIH (United States).

TWA: 100 ppm 8 hour(s). STEL: 150 ppm 15 minute(s).

OSHA (United States).

TWA: 100 ppm 8 hour(s).

Ethylbenzene ACGIH (United States).

TWA: 100 ppm 8 hour(s).

STEL: 125 ppm 15 minute(s). **OSHA (United States).**

TWA: 100 ppm 8 hour(s).

Toluene ACGIH (United States). Skin

TWA: 20 ppm 8 hour(s).

Distributed by: The Science Company

Part Numbers: NC-11486, NC-13133, X1003

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)

Odor Sweet, pungent aromatic **Physical State** Liquid. Color Transparent,

> hydrocarbon. colorless.

Vapor 3.70 (Air = 1)0.87 (Water = 1)**Specific Gravity** Not Applicable. Hq

Density

Boiling Range 138 - 142°C (280 - 288°F) Melting/Freezing -48 to -25°C (-54 to -13°F)

Point

Volatility 872 g/I VOC (w/v) **Vapor Pressure** 0.9 kPa (7 mm Hg) (at 20°C)

Very slightly soluble in cold water. (<0.1 % Solubility in

Viscosity Not available. (cSt@40°C) w/w) Water

Flash Point Closed cup: 27°C (81°F). No additional information. Additional

Properties

SECTION 10. STABILITY AND REACTIVITY

Hazardous Polymerization Not expected to occur. **Chemical Stability** Stable.

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, hydrogen peroxide, and oxygen.

Hazardous **Decomposition Products**

No additional hazardous decomposition products were identified other than the combustion

products identified in Section 5 of this MSDS.

SECTION 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 Xylene, all isomers

Effects from Acute Exposure:

ORAL (LD₅₀), Acute: 4,300 mg/kg [Rat].

INHALATION (LC₅₀), Acute: 4,550 ppm for four hours [Rat].

DERMAL (LD50), Acute: 14,100 uL/kg [Rabbit].

Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, CNS damage and narcosis. Effects may be increased by the use of alcoholic beverages. Evidence of liver and kidney impairment were reported in workers recovering from a gross over-exposure.

Effects from Prolonged or Repeated Exposure:

Impaired neurological function was reported in workers exposed to solvents including xylene. Studies in laboratory animals have shown evidence of impaired hearing following high levels of exposure. Studies in laboratory animals suggest some changes in reproductive organs following high levels of exposure but no significant effects on reproduction were observed. Studies in laboratory animals indicate skeletal and visceral malformations, developmental delays, and increased fetal resorptions following extremely high levels of maternal exposure.

Distributed by: The Science Company Part Numbers: NC-11486, NC-13133, X1003

Adverse effects on the liver, kidney, bone marrow (changes in blood cell parameters) were observed in laboratory animals following high levels of exposure. The relevance of these observations to humans is not clear at this time.

Ethylbenzene

Effects from Acute Exposure:

ORAL (LD50), Acute: 3,500 mg/kg [Rat]. DERMAL (LD50), Acute: 17,800 uL/kg [Rabbit].

INTRAPERITONEAL (LD50), Acute: 2,624 mg/kg [Rat].

Effects from Prolonged or Repeated Exposure:

Findings from a 2-year inhalation study in rodents conducted by NTP were as follows: Effects were observed only at the highest exposure level (750 ppm). At this level the incidence of renal tumors was elevated in male rats (tubular carcinomas) and female rats (tubular adenomas). Also, the incidence of tumors was elevated in male mice (alveolar and bronchiolar carcinomas) and female mice (hepatocellular carcinomas). IARC has classified ethyl benzene as "possibly carcinogenic to humans" (Group 2B). Studies in laboratory animals indicate some evidence of post-implantation deaths following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals indicate limited evidence of renal malformations, resorptions, and developmental delays following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity This mixture contains components that are potentially toxic to freshwater and saltwater

ecosystems.

Environmental Fate Biodegradability: Rapidly biodegradable in aerobic conditions.

Partition Coefficient (log Kow): 2 to 3 (based on similar materials)

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 the 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.

Maximize material recovery for reuse or recycling. Non-usable product is regulated by US EPA as a hazardous waste (U239). Recovered non-usable material may be regulated by US EPA as a hazardous waste due to its ignitibility (D001) and/or its toxic (D018) characteristics. 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.

Distributed by: The Science Company

Part Numbers: NC-11486, NC-13133, X1003

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 regulated material.

Proper Shipping Name RQ, Xylenes, 3, UN 1307, PG II or III

Hazard Class 3 Packing Group II or III

UN/NA Number UN1307

Reportable Quantity RQ 100 lbs. [Based upon maximum Xylene concentration of 100% and an RQ of 100 lbs.]

Placard(s)

Emergency Response Guide No.

130

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:

Xylene, all isomers [CAS No.: 1330-20-7] Concentration: 70 - 90% Ethylbenzene [CAS No.: 100-41-4] Concentration: 10 - 30%

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:

Xylene, all isomers [CAS No.: 1330-20-7] RQ = 100 lbs. (45.36 kg) Concentration: 60 - 100% Ethylbenzene [CAS No.: 100-41-4] RQ = 1000 lbs. (453.6 kg) Concentration: 10 - 30%

Benzene [CAS No.: 71-43-2] RQ = 10 lbs. (4.536 kg) Concentration: <0.01%

Clean Water Act

(CWA)

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.

Distributed by: The Science Company Part Numbers: NC-11486, NC-13133, X1003

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):

Ethylbenzene: 10 - 30%

Toluene: <1%
Benzene: <0.01%

New Jersey

Right-to-Know Label

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

Additional Remarks 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 Xylene 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 Xylene! 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.

REVISION INFORMATION

Version Number 4.5

Revision Date 11/7/2008

ABBREVIATIONS

AP: Approximately EQ: Equal >: Greater Than <: Less Than

NA: Not Applicable ND: No Data NE: Not Established

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

IARC: International Agency for Research on Cancer

NIOSH: National Institute of Occupational Safety and Health

NPCA: National Paint and Coating Manufacturers Association

EPA: US Environmental Protection Agency HMIS: Hazardous Materials Information System

OSHA: Occupational Safety and Health Administration

NTP: National Toxicology Program

NFPA: National Fire Protection Association

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 ASSUME 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.

***** END OF MSDS *****