



WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF AIR QUALITY  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0475  
www.dep.wv.gov/daq

**PERMIT DETERMINATION FORM  
(PDF)**

FOR AGENCY USE ONLY: PLANT I.D. # \_\_\_\_\_  
PDF # \_\_\_\_\_ PERMIT WRITER: \_\_\_\_\_

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE):

The Chemours Company FC, LLC

2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE):

Chemours Washington Works

3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE:

**325211**

4A. MAILING ADDRESS: Building 1

Chemours Washington Works

Washington WV 26181-1217

4B. PHYSICAL ADDRESS: 8480 DuPont Road

Washington WV 26181

5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE MAP AS ATTACHMENT A): See Attachment A

5B. NEAREST ROAD:

WV Route 892

5C. NEAREST CITY OR TOWN:

Parkersburg

5D. COUNTY:

Wood

5E. UTM NORTHING (KM):

4347090.78

5F. UTM EASTING (KM):

442850.69

5G. UTM ZONE:

17S

6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED:

John E. Sjostedt

6B. TITLE:

Engineer

6C. TELEPHONE:

304-863-4488

6D. FAX:

304-863-4973

6E. E-MAIL:

John.E.Sjostedt-  
1@Chemours.com

7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY):

  107 - 00182  

7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR AN EXISTING FACILITY ONLY):

R30-10700182-2015 (12 of 14)

7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST: No

8A. TYPE OF EMISSION SOURCE (CHECK ONE):

- NEW SOURCE     ADMINISTRATIVE UPDATE  
 MODIFICATION     OTHER (PLEASE EXPLAIN IN 11B)

8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN?

- YES     NO

9. IS DEMOLITION OR PHYSICAL RENOVATION AT AN EXISTING FACILITY INVOLVED?     YES     NO

10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE:

04/15/2016

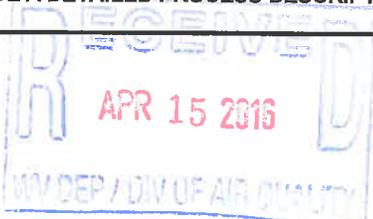
10B. DATE OF ANTICIPATED START-UP:

04/25/2016

11A. PLEASE PROVIDE A DETAILED PROCESS FLOW DIAGRAM SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS ATTACHMENT B.

11B. PLEASE PROVIDE A DETAILED PROCESS DESCRIPTION AS ATTACHMENT C.

I.D. No. 10900180 Reg. 13  
Company Chemours  
Facility WV Region 3  
Initials \_\_\_\_\_ Revision 5/2010  
PP16-007



12. PLEASE PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS ATTACHMENT D. FOR CHEMICAL PROCESSES, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**13A. REGULATED AIR POLLUTANT EMISSIONS:**

⇒ FOR A NEW FACILITY, PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.

⇒ FOR AN EXISTING FACILITY, PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.

PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	HOURLY PTE (LB/HR)	YEARLY PTE (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR) DIVIDED BY 2000 LB/TON
PM		
PM <sub>10</sub>		
VOCs	10.4	0.5662
CO		
NO <sub>x</sub>		
SO <sub>2</sub>		
Pb		
HAPs (AGGREGATE AMOUNT)	0.64	0.035
TAPs (INDIVIDUALLY)*		
OTHER (INDIVIDUALLY)*		

\* ATTACH ADDITIONAL PAGES AS NEEDED

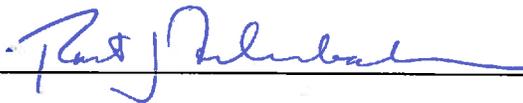
**13B. PLEASE PROVIDE ALL SUPPORTING CALCULATIONS AS ATTACHMENT E.**

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13, MINERAL ACIDS PER 45CSR7, ETC.).

**14. CERTIFICATION OF DATA**

I, Robert J. Fehrenbacher (TYPE NAME) ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A **RESPONSIBLE OFFICIAL\*\*** (PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: \_\_\_\_\_



TITLE: Plant Manager

DATE: Apr 13, 2014

THE DEFINITION OF THE PHRASE 'RESPONSIBLE OFFICIAL' CAN BE FOUND AT 45CSR13, SECTION 2.23.

**NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS:**

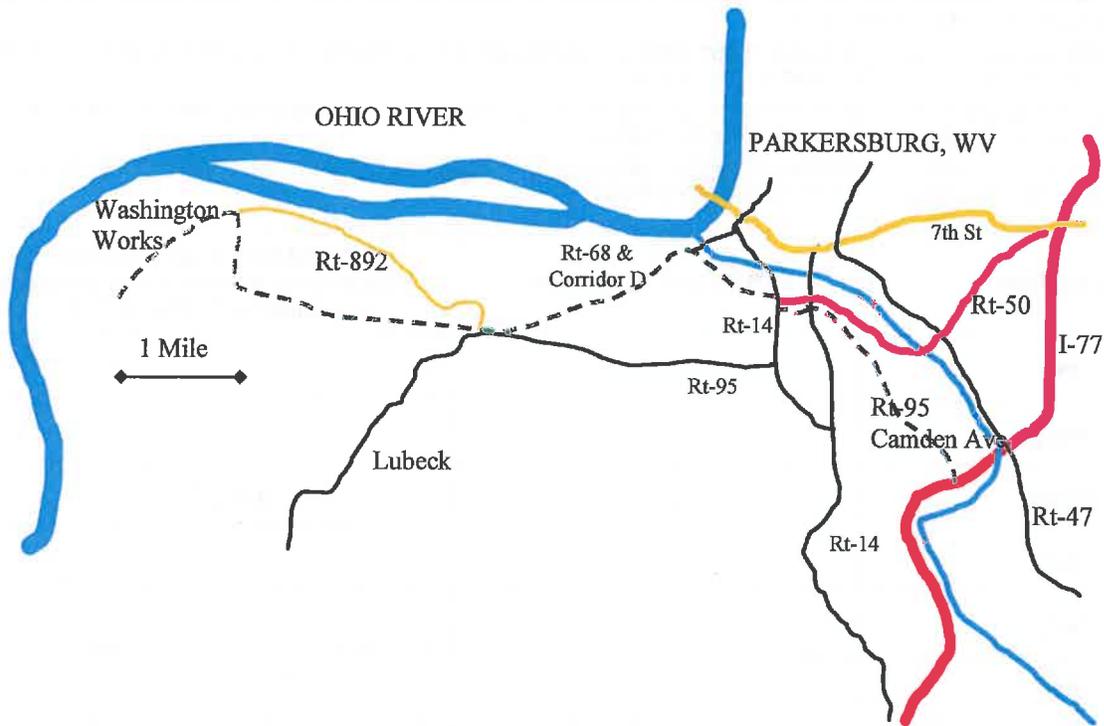
ATTACHMENT A     ATTACHMENT B     ATTACHMENT C     ATTACHMENT D     ATTACHMENT E

RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE:

[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

## ATTACHMENT A – Map to Facility



From Interstate 77, take exit for Rt-95/Camden Avenue.  
Proceed West until intersection with Rt-14 then turn right (north).  
After about 1/4 mile turn left onto Corridor D Bypass entrance.  
Follow the bypass to the exit just before the bridge  
Turn left (south) onto DuPont Rd, Rt-892.  
Proceed approx. 1 mile to facility on right.

## Attachment B

### Process Flow Diagram

The installation consists of a single gasoline storage tank (nominal 1000 gallons) that is filled from a tanker truck (mobile source) and then is used to dispense the gasoline fuel into individual vehicles or containers. This is not a process but rather a storage and dispensing location consisting of a single tank.

The storage tank is double walled, painted white, submerged fill tube, with no controls on the vapor.

## Attachment C

### Process/Project Description

The facility under evaluation is a small (1000 gallons) tank that will be used for dispensing gasoline fuel to some motor vehicles and other various mobile equipment. The tank will be filled periodically by the fuel supplier vendor from his transport truck and the fuel will be dispensed "as-needed" to individual company owned equipment/vehicles or into containers for use in refueling temporary or mobile sources on-site. The storage tank is double walled, painted white, submerged fill tube, with no controls on the vapor. See Attached Pictures.

#### Regulatory Discussion:

The tank is a nominal 1000 gallon tank to be used solely for gasoline storage to feed an associated dispensing pump. From 45 CSR 21-23 –

**a. This section 23 applies to any gasoline dispensing facility and the appurtenant equipment necessary to a gasoline dispensing facility.**

**b. The following are subject only to section 23.2.a.1.**

- 1. Any transfer made to a gasoline dispensing facility storage tank that is equipped with a floating roof or its equivalent that has been approved by the U.S. EPA;**
- 2. Any stationary gasoline storage container with a capacity that is less than 2,080 liters (L) (550 gallons [gal]) that is used exclusively for the fueling of implements of husbandry;**
- 3. Any stationary storage tank with a capacity of less than 7,600 L (2,000 gal) that was constructed prior to January 1, 1979; and**
- 4. Any stationary storage tank with a capacity of less than 950 L (250 gal) that was constructed after December 31, 1978.**

**c. Any gasoline dispensing facility with a throughput of less than 38,000 L (10,000 gal) per month is subject only to the provisions of sections 23.2.a.1 and 23.3.**

As the tank is a nominal capacity of 1000 gallons and was originally constructed in 2013 we look to expected throughput to determine applicable requirements under 45 CSR 21-23. The maximum throughput for the vessel is anticipated to be 3500 gallons per month which is 30% greater than the highest use rate experienced from our previous practice of dispensing directly from the vendors' truck during a scheduled service call. This places under the requirements stated in 45 CSR 21-23.1(c).

45 CSR 2123.2.a.1 reads –

**a. The owner or operator of each gasoline dispensing facility subject to this section 23 shall comply with the following requirements:**

- 1. All gasoline storage vessels at gasoline dispensing facilities shall be loaded by submerged fill;**

The proposed tank is equipped with a submerged fill.

45 CSR 23.3 reads –

**23.3. Recordkeeping. -- The owner or operator of each gasoline dispensing facility subject to this section 23 shall maintain daily records showing the quantity of all gasoline delivered to the site. These records shall be retained for at least 3 years in a readily accessible location and shall be made available to the Director upon verbal or written request.**

These applicable requirement shall need to be incorporated into the limitations for the vessel under the Title V permit. Refer to the attached 45 CSR 30 documentation in attachment S.1.



LEAK  
DETECTION  
MONITORING  
PORT  
DO NOT  
FILL  
WITH  
PRODUCT

**DOUBLE-WALL TANK TEST PROCEDURE**



1. Plug all vents not required for testing.
  2. Open Port C and leave open.
  3. Open Ports A and B and fill with air. Check for leaks.
  4. Close Ports A and B. Check for leaks through containment tank.
  5. Check for leaks. If any leaks are found, stop test.
  6. Check Port C.
  7. Open Ports A and B. Check for leaks through containment tank. Check Port A.
  8. Close Ports A and B. Check for leaks through containment tank. Check Port B.
  9. Close Port C.
  10. Check for leaks through containment tank. Check Port D.
  11. Close Port D.
  12. Check for leaks through containment tank. Check Port E.
  13. Close Port E.
  14. Check for leaks through containment tank. Check Port F.
  15. Close Port F.
  16. Check for leaks through containment tank.
- NOTE:** Double Wall Tanks are not to be used for the storage of flammable liquids. The maximum capacity of the tank shall not exceed 10,000 gallons. The weight shall not exceed 15,000 lbs.
- CAUTION:** LEAKS OCCURRING DURING MAINTENANCE
1. DO NOT remove the cap of the leak detection port.
  2. DO NOT remove the cap of the vent port.
  3. DO NOT remove the cap of the vent port.
  4. DO NOT remove the cap of the vent port.





RESPONSIBLE CARE  
OUR COMMITMENT TO EXCELLENCE

# SAFETY DATA SHEET

SDS ID NO.: 0130MAR019  
Revision Date: 05/14/2015

## 1. IDENTIFICATION

Product Name: Marathon Petroleum Regular Unleaded Gasoline With Ethanol

Synonym: Regular Unleaded Gasoline With Alcohol  
Chemical Family: Complex Hydrocarbon Substance

Recommended Use: Fuel.  
Use Restrictions: All others.

Supplier Name and Address:  
**MARATHON PETROLEUM COMPANY LP**  
539 South Main Street  
Findlay, OH 45840

SDS information: 1-419-421-3070

Emergency Telephone: 1-877-627-5463

## 2. HAZARD IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 1
Skin corrosion/irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

#### Hazards Not Otherwise Classified (HNOC)

Static accumulating flammable liquid

### Label elements

#### EMERGENCY OVERVIEW

#### Danger

**EXTREMELY FLAMMABLE LIQUID AND VAPOR**  
May accumulate electrostatic charge and ignite or explode

May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness  
May cause genetic defects  
May cause cancer  
Suspected of damaging fertility or the unborn child  
Toxic to aquatic life with long lasting effects



**Appearance** Clear or Colored Liquid

**Physical State** Liquid

**Odor** Strong Hydrocarbon

**Precautionary Statements - Prevention**

Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting/equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not eat, drink or smoke when using this product  
Do not breathe mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wash hands thoroughly after handling  
Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation occurs: Get medical attention  
Wash contaminated clothing before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor if you feel unwell  
IF SWALLOWED: Immediately call a POISON CENTER or doctor  
Do NOT induce vomiting  
In case of fire: Use water spray, fog or regular foam for extinction  
Collect spillage

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
Keep cool  
Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container at an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Gasoline is a complex combination of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having molecular chains ranging in length from four to ten carbons. May contain small amounts of dye and other additives (>0.02%) which are not considered hazardous at the concentrations used.

**Composition Information:**

Name	CAS Number	Weight %
Gasoline	86290-81-5	100
Toluene	108-88-3	0.9-13.5
Ethyl Alcohol	64-17-5	5.7-10
Xylene (mixed isomers)	1330-20-7	1.8-9
1,2,4 Trimethylbenzene	95-63-6	0.9-4.5
Benzene	71-43-2	0.45-3.2
n-Hexane	110-54-3	0-2.7
Ethylbenzene	100-41-4	0.45-1.8
Naphthalene	91-20-3	0.1-0.5

**4. FIRST AID MEASURES**

**First Aid Measures**

**General advice**

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Inhalation:**

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**Skin Contact:**

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

**Eye Contact:**

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

**Ingestion:**

Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**Most important signs and symptoms, both short-term and delayed with overexposure**

**Adverse Effects:**

Acute: Headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.  
Delayed: Dry skin and possible irritation with repeated or prolonged exposure.

**Indication of any immediate medical attention and special treatment needed**

**NOTES TO PHYSICIAN:**

**INHALATION:** This material (or a component) sensitizes the myocardium 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.

**SKIN:** Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be **SERIOUS SURGICAL EMERGENCIES**.

**INGESTION:** This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

**Unsuitable extinguishing media**

Do not use straight water streams to avoid spreading fire.

**Specific hazards arising from the chemical**

This product has been determined to be an extremely flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

**Hazardous combustion products**

Smoke, carbon monoxide, and other products of incomplete combustion.

**Explosion data**

**Sensitivity to Mechanical Impact No.**

**Sensitivity to Static Discharge Yes.**

**Special protective equipment and precautions for firefighters**

Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

**NFPA:** Health 1 Flammability 3 Instability 0 Special Hazards -

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources.

**Protective Equipment:** Use personal protection measures as recommended in Section 8.

**Emergency Procedures:** Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.

<b>Environmental precautions:</b>	Ethanol in gasoline phase separates in contact with water. Monitor downstream for dissolved ethanol or other appropriate indicators. Avoid release to the environment. Avoid subsoil penetration.
<b>Methods and materials for containment:</b>	Contain liquid with sand or soil.
<b>Methods and materials for cleaning up:</b>	Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

## 7. HANDLING AND STORAGE

<b>Safe Handling Precautions:</b>	<p>NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking. Avoid repeated and prolonged skin contact. Use personal protection measures as recommended in Section 8. Use only non-sparking tools. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.</p> <p>Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.</p> <p>Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.</p> <p>A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.</p> <p>Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.</p> <p>High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be <b>SERIOUS SURGICAL EMERGENCIES</b> (See First Aid Section 4).</p>
<b>Storage Conditions:</b>	Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area.
<b>Incompatible materials</b>	Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Name	ACGIH TLV	OSHA PELs:	OSHA - Vacated PELs	NIOSH IDLH
Gasoline 86290-81-5	300 ppm TWA 500 ppm STEL	-	300 ppm TWA 900 mg/m <sup>3</sup> TWA 500 ppm STEL 1500 mg/m <sup>3</sup> STEL	-
Toluene 108-88-3	20 ppm TWA	TWA: 200 ppm Ceiling: 300 ppm	100 ppm TWA 375 mg/m <sup>3</sup> TWA 150 ppm STEL 560 mg/m <sup>3</sup> STEL	500 ppm
Ethyl Alcohol 64-17-5	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	3300 ppm
Xylene (mixed isomers) 1330-20-7	100 ppm TWA 150 ppm STEL	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	100 ppm TWA 435 mg/m <sup>3</sup> TWA 150 ppm STEL 655 mg/m <sup>3</sup> STEL	900 ppm
1,2,4 Trimethylbenzene 95-63-6	25 ppm TWA	-	25 ppm TWA 125 mg/m <sup>3</sup> TWA	-
Benzene 71-43-2	0.5 ppm TWA 2.5 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028) TWA: 1 ppm STEL: 5 ppm (see 29 CFR 1910.1028)	25 ppm Ceiling 1 ppm TWA 5 ppm STEL	500 ppm
n-Hexane 110-54-3	50 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 500 ppm TWA: 1800 mg/m <sup>3</sup>	50 ppm TWA 180 mg/m <sup>3</sup> TWA	1100 ppm
Ethylbenzene 100-41-4	20 ppm TWA	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	100 ppm TWA 435 mg/m <sup>3</sup> TWA 125 ppm STEL 545 mg/m <sup>3</sup> STEL	800 ppm
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	10 ppm TWA 50 mg/m <sup>3</sup> TWA 15 ppm STEL 75 mg/m <sup>3</sup> STEL	250 ppm

**Notes:** The manufacturer has voluntarily elected to provide exposure limits contained in OSHA's 1989 air contaminants standard in its SDSs, even though certain of those exposure limits were vacated in 1992.

**Engineering measures:** Local or general exhaust required in an enclosed area or when there is inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

**Personal protective equipment**

**Eye protection:** Use goggles or face-shield if the potential for splashing exists.

**Skin and body protection:** Use nitrile rubber, viton or PVA gloves for repeated or prolonged skin exposure. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

**Respiratory protection:** Approved organic vapor chemical cartridge or supplied air respirators should be worn for exposures to any components exceeding the established exposure limits. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear or Colored Liquid
Color	Clear or Colored
Odor	Strong Hydrocarbon
Odor Threshold	No available data.

<u>Property</u>	<u>Values (Method)</u>
Melting Point / Freezing Point	No available data.
Initial Boiling Point / Boiling Range	32-225 °C / 90-437 °F
Flash Point	-45.5 °C / -50 °F
Evaporation Rate	No available data.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%)	
Upper Flammability Limit:	7.6
Lower Flammability Limit:	1.4
Vapor Pressure	403-776 mm Hg@ 100°F
Vapor Density	3-4
Specific Gravity / Relative Density	0.70-0.77
Water Solubility	Negligible
Solubility in other solvents	No available data.
Partition Coefficient	2.13-4.5
Decomposition temperature:	No available data.
pH:	Not applicable
Autoignition Temperature	C.A. 257 °C / 495 °F
Kinematic Viscosity	No available data.
Dynamic Viscosity	No available data.
Explosive Properties	No available data.
Softening Point	No available data.
VOC Content (%)	100%
Density	5.9-6.3 lbs/gal
Bulk Density	Not applicable.

## 10. STABILITY AND REACTIVITY

<u>Reactivity</u>	The product is non-reactive under normal conditions.
<u>Chemical stability</u>	The material is stable at 70°F, 760 mmHg pressure.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Hazardous polymerization</u>	Will not occur.
<u>Conditions to avoid</u>	Excessive heat, sources of ignition, open flame.
<u>Incompatible materials</u>	Strong oxidizing agents.
<u>Hazardous decomposition products</u>	None known under normal conditions of use.

## 11. TOXICOLOGICAL INFORMATION

### Potential short-term adverse effects from overexposures

<b>Inhalation</b>	Irritating to the respiratory system. May cause drowsiness or dizziness. Breathing high concentrations of this material in a confined space or by intentional abuse can cause irregular heartbeats which can cause death.
<b>Eye contact</b>	Causes mild eye irritation.
<b>Skin contact</b>	Causes skin irritation. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.
<b>Ingestion</b>	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

**Acute Toxicological data**

Name	Oral LD50	Dermal LD50	Inhalation LC50
Gasoline 86290-81-5	14000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Toluene 108-88-3	> 2000 mg/kg (Rat)	8390 mg/kg (Rabbit)	12.5 mg/L (Rat) 4 h
Ethyl Alcohol 64-17-5	> 5000 mg/kg (Rat)	-	124.7 mg/L (Rat) 4 h
Xylene (mixed isomers) 1330-20-7	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.04 mg/L (Rat) 4 h
1,2,4 Trimethylbenzene 95-63-6	3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	18,000 mg/m <sup>3</sup> (Rat) 4 h
Benzene 71-43-2	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 20 mg/l (Rat) 4 h
n-Hexane 110-54-3	15000 mg/kg (Rat)	3000 mg/kg (Rabbit)	48000 ppm (Rat) 4 h
Ethylbenzene 100-41-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h
Naphthalene 91-20-3	490 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 340 mg/m <sup>3</sup> (Rat) 1 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**BENZENE:** Studies of workers exposed to benzene show clear evidence that overexposure can cause cancer and other diseases of the blood forming organs including Acute Myelogenous Leukemia (AML), and Aplastic Anemia (AA), an often fatal disease. Some studies suggest overexposure to benzene may also be associated with Myelodysplastic Syndrome (MDS). Findings from a case control study of workers exposed to benzene was reported during the 2009 Benzene Symposium in Munich included an increase in Acute Myeloid Leukemias and Non-Hodgkins Lymphoid Neoplasms (NHLN) of the subtype follicular lymphoma (FL) in some occupational categories. Some studies of workers exposed to benzene have shown an association with increased rates of chromosome aberrations in circulating lymphocytes. One study of women workers exposed to benzene suggested a weak association with irregular menstruation. However, other studies of workers exposed to benzene have not demonstrated clear evidence of an effect on fertility or reproductive outcome in humans. Benzene can cross the placenta and affect the developing fetus. Cases of AA have been reported in the offspring of persons severely overexposed to benzene. Studies in laboratory animals indicate that prolonged, repeated exposure to high levels of benzene vapor can cause bone marrow suppression and cancer in multiple organ systems. Studies in laboratory animals show evidence of adverse effects on male reproductive organs following high levels of exposure but no significant effects on reproduction have been observed. Embryotoxicity has been reported in studies of laboratory animals but effects were limited to reduced fetal weight and minor skeletal variations. Benzene has been classified as a proven human carcinogen by OSHA and a Group 1 (Carcinogenic to Humans) material by IARC. The current proposed IARC classification for benzene is summarized as follows: Sufficient evidence for Acute Myeloid Leukemia; limited evidence for Acute Lymphatic Leukemia, Chronic Lymphatic Leukemia, Non-Hodgkin Lymphoma, and Multiple Myeloma.

**NAPHTHAS:** In a large epidemiological study on over 15,000 employees at several petroleum refineries and amongst residents located near these refineries, no increased risk of kidney cancer was observed in association with gasoline exposures (a similar material). In a similar study, no increased risk of kidney cancer was observed among petroleum refinery workers, but there was a slight trend in the incidence of kidney cancers among service station employees, especially after a 30-year latency period. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**TOLUENE:** Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Abuse 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. Studies of workers indicate longterm exposure may be related to impaired color vision and hearing. Some studies of workers suggest longterm 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 longterm 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 have been 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. Adverse effects on the liver, kidney, thymus and nervous system were observed in animal

studies following very high levels of exposure. The relevance of these findings to humans is not clear at this time.

**ETHYLBENZENE:** 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). The incidence of tumors was also 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 with evidence of maternal toxicity. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals have demonstrated evidence of ototoxicity (hearing loss) following exposure levels as low as 300 ppm for 5 days. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland.

**XYLENES, ALL ISOMERS:** Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, nervous system 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 overexposure. 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 with evidence of maternal toxicity. The relevance of these observations to humans is not clear at this time. 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.

**C9 AROMATIC HYDROCARBONS:** A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**N-HEXANE:** Long-term or repeated exposure to n-hexane can cause peripheral nerve

damage. Initial symptoms are numbness of the fingers and toes. Also, motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. Testicular atrophy and partial to full loss of the germ cell line were observed in sub-chronic high-dose inhalation studies of laboratory rodents. These effects appeared irreversible. Rodent reproduction studies have shown evidence of reduced fetal weight but no frank malformations.

**PENTANES:** Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

**ETHANOL:** Repeated ingestion of ethanol can result in alcohol abuse, causing behavioral changes, memory loss, impaired judgement, decreased appetite, irregular heartbeats, and decreased fertility. Prolonged and repeated ingestion of ethanol has also been associated with cancers of the mouth, pharynx, esophagus and liver. Ethanol ingestion by pregnant women can cause miscarriage, low birth weight, premature birth and fetal alcohol syndrome. In males, acute and chronic alcohol ingestion may affect gonadal hormone levels. It may also affect the liver, kidney, brain, blood and cardiovascular system.

**CARBON MONOXIDE:** is a chemical asphyxiant with no warning properties (such as odor). At 400-500 ppm for 1 hour headache and dyspnea may occur. If activity is increased, symptoms of overexposure may include nausea, irritability, increased respiration, tinnitus, sweating, chest pain, confusion, impaired judgement, dizziness, weakness, drowsiness, ataxia, irregular heart beat, cyanosis and pallor. Levels in excess of 1000 ppm can result in collapse, loss of consciousness, respiratory failure and death. Extremely high concentrations (12,800 ppm) can cause immediate unconsciousness and death in 1-3 minutes. Repeated anoxia can lead to central nervous system damage and peripheral neuropathy, with loss of sensation in the fingers, amnesia, and mental deterioration and possible congestive heart failure. Damage may also occur to the fetus, lung, liver, kidney, spleen, cardiovascular system and other organs.

**COMBUSTION ENGINE EXHAUST:** Chronic inhalation studies of gasoline engine exhaust in mice, rats and hamsters did not produce any carcinogenic effects. Condensates/extracts of gasoline engine exhaust produced an increase in tumors compared to controls when testing by skin painting, subcutaneous injection, intratracheal instillation or implantation into the lungs.

**Adverse effects related to the physical, chemical and toxicological characteristics**

**Signs & Symptoms** Nausea, vomiting, signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.

**Sensitization** Not expected to be a skin or respiratory sensitizer.

**Mutagenic effects** May cause genetic defects.

**Carcinogenicity** Cancer designations are listed in the table below.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Gasoline 86290-81-5	Confirmed animal carcinogen (A3)	Possibly Carcinogenic (2B)	Not Listed	Not Listed
Toluene 108-88-3	Not Classifiable (A4)	Not Classifiable (3)	Not Listed	Not Listed
Ethyl Alcohol 64-17-5	Confirmed animal carcinogen (A3)	Carcinogenic (1) Alcoholic Beverages	Known to be human carcinogen - Alcoholic Beverage Consumption	Not Listed
Xylene (mixed isomers) 1330-20-7	Not Classifiable (A4)	Not Classifiable (3)	Not Listed	Not Listed
1,2,4 Trimethylbenzene 95-63-6	Not Listed	Not Listed	Not Listed	Not Listed

Benzene 71-43-2	Confirmed human carcinogen (A1)	Carcinogenic to humans (1)	Known to be human carcinogen	Known carcinogen
n-Hexane 110-54-3	Not Listed	Not Listed	Not Listed	Not Listed
Ethylbenzene 100-41-4	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (STOT) - single exposure** Respiratory system. Central nervous system.

**Specific Target Organ Toxicity (STOT) - repeated exposure** Not classified.

**Aspiration hazard** May be fatal if swallowed or vomited and enters airways.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Gasoline 86290-81-5	72-hr EC50 = 56 mg/l Algae	96-hr LC50 = 11 mg/l Rainbow trout (static)	-	48-hr LC50 = 7.6 mg/l Daphnia magna
Toluene 108-88-3	72-hr EC50 = 12.5 mg/l Algae	96-hr LC50 <= 10 mg/l Rainbow trout	-	48-hr EC50 = 5.46-9.83 mg/l Daphnia magna 48-hr EC50 = 11.5 mg/l Daphnia magna (Static)
Ethyl Alcohol 64-17-5	-	96-hr LC50 >1,000 mg/l Rainbow Trout (static) 96-hr LC50 >100 mg/l Fathead minnow (static)	-	48-hr LC50 >1,000 mg/l Daphnia magna
Xylene (mixed isomers) 1330-20-7	72-hr EC50 = 11 mg/l Algae	96-hr LC50 = 8 mg/l Rainbow trout	-	48-hr LC50 = 3.82 mg/l Daphnia magna
1,2,4 Trimethylbenzene 95-63-6	-	96-hr LC50 = 7.19-8.28 mg/l Fathead minnow (flow-through)	-	48-hr EC50 = 6.14 mg/L Daphnia magna
Benzene 71-43-2	72-hr EC50 = 29 mg/l Algae	96-hr LC50 = 5.3 mg/l Rainbow trout (flow-through)	-	48-hr EC50 = 8.76-15.6 mg/l Daphnia magna (Static)
n-Hexane 110-54-3	-	96-hr LC50 = 2.5 mg/l Fathead minnow	-	-
Ethylbenzene 100-41-4	72-hr EC50 = 1.7-7.6 mg/l Algae	96-hr LC50 = 4 mg/L Rainbow trout	-	48-hr EC50 = 1-4 mg/L Daphnia magna
Naphthalene 91-20-3	-	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	-	48-hr LC50 = 1.6 mg/l Daphnia magna

**Persistence and degradability** Expected to be inherently biodegradable. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethylbenzene and xylene in groundwater, resulting in elongated plumes of these constituents.

**Bioaccumulation** Has the potential to bioaccumulate.

**Mobility in soil** May partition into air, soil and water.

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

**Description of Waste Residues**

This material may be a flammable liquid waste.

**Safe Handling of Wastes**

Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

**Disposal of Wastes / Methods of Disposal**

The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Methods of Contaminated Packaging Disposal**

Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

### 14. TRANSPORT INFORMATION

**DOT (49 CFR 172.101):**

<b>UN Proper shipping name:</b>	Gasoline
<b>UN/Identification No:</b>	UN 1203
<b>Transport Hazard Class(es):</b>	3
<b>Packing group:</b>	II

**TDG (Canada):**

<b>UN Proper shipping name:</b>	Gasoline
<b>UN/Identification No:</b>	UN 1203
<b>Transport Hazard Class(es):</b>	3
<b>Packing group:</b>	II

### 15. REGULATORY INFORMATION

**US Federal Regulatory Information:**

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

**EPA Superfund Amendment & Reauthorization Act (SARA):**

**SARA Section 302:**

This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List.

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Gasoline	NA
Toluene	NA
Ethyl Alcohol	NA
Xylene (mixed isomers)	NA
1,2,4 Trimethylbenzene	NA
Benzene	NA
n-Hexane	NA
Ethylbenzene	NA
Naphthalene	NA

**SARA Section 304:**

This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Gasoline	NA
Toluene	1000 lb final RQ 454 kg final RQ
Ethyl Alcohol	NA
Xylene (mixed isomers)	100 lb final RQ 45.4 kg final RQ
1,2,4 Trimethylbenzene	NA
Benzene	10 lb final RQ 4.54 kg final RQ
n-Hexane	5000 lb final RQ 2270 kg final RQ
Ethylbenzene	1000 lb final RQ 454 kg final RQ
Naphthalene	100 lb final RQ 45.4 kg final RQ

**SARA:** The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Chronic Health Hazard
- Fire Hazard

**SARA Section 313:** This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
Gasoline	None
Toluene	1.0 % de minimis concentration
Ethyl Alcohol	None
Xylene (mixed isomers)	1.0 % de minimis concentration
1,2,4 Trimethylbenzene	None
Benzene	0.1 % de minimis concentration
n-Hexane	1.0 % de minimis concentration
Ethylbenzene	0.1 % de minimis concentration
Naphthalene	0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Gasoline**

- |   |   |
|---|---|
| Louisiana Right-To-Know:                              | Not Listed.   |
| California Proposition 65:                            | Not Listed.   |
| New Jersey Right-To-Know:                             | SN 0957   |
| Pennsylvania Right-To-Know:                           | Present   |
| Massachusetts Right-To Know:                          | Present   |
| Florida Substance List:                               | Not Listed.   |
| Rhode Island Right-To-Know:                           | Not Listed.   |
| Michigan Critical Materials Register List:            | Not Listed.   |
| Massachusetts Extraordinarily Hazardous Substances:   | Not Listed.   |
| California - Regulated Carcinogens:                   | Not Listed.   |
| Pennsylvania RTK - Special Hazardous Substances:      | Not Listed.   |
| New Jersey - Special Hazardous Substances:            | Carcinogen; Flammable - third degree  |
| New Jersey - Environmental Hazardous Substances List: | SN 0957 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories) |
| Illinois - Toxic Air Contaminants                     | Present   |

New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.
<b>Toluene</b>	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Developmental toxicity, initial date 1/1/91 Female reproductive toxicity, initial date 8/7/09 SN 1866
New Jersey Right-To-Know:	Environmental hazard
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Not Listed.
Florida Substance List:	Toxic (skin); Flammable (skin)
Rhode Island Right-To-Know:	100 lb Annual usage threshold
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Flammable - third degree; Teratogen
New Jersey - Environmental Hazardous Substances List:	SN 1866 TPQ: 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
<b>Ethyl Alcohol</b>	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Carcinogen, initial date 4/29/11 (in alcoholic beverages) Carcinogen, initial date 7/1/88 (when associated with alcohol abuse) Developmental toxicity, initial date 10/1/87 (in alcoholic beverages)
New Jersey Right-To-Know:	SN 0844
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Teratogen
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Carcinogen; Flammable - third degree; Mutagen; Teratogen
New Jersey - Environmental Hazardous Substances List:	Not Listed.
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.
<b>Xylene (mixed isomers)</b>	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	SN 2014
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan Critical Materials Register List:	100 lb Annual usage threshold all isomers
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 2014 TPQ: 500 lb

Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
1,2,4 Trimethylbenzene	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	SN 1929
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Not Listed.
New Jersey - Environmental Hazardous Substances List:	Not Listed.
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.
Benzene	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Carcinogen, initial date 2/27/87 Developmental toxicity, initial date 12/26/97 Male reproductive toxicity, initial date 12/26/97 SN 0197
New Jersey Right-To-Know:	Environmental hazard; Special hazardous substance
Pennsylvania Right-To-Know:	Carcinogen; Extraordinarily hazardous
Massachusetts Right-To Know:	Not Listed.
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin); Carcinogen (skin)
Michigan Critical Materials Register List:	100 lb Annual usage threshold
Massachusetts Extraordinarily Hazardous Substances:	Carcinogen; Extraordinarily hazardous
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Present
New Jersey - Special Hazardous Substances:	Carcinogen; Flammable - third degree; Mutagen
New Jersey - Environmental Hazardous Substances List:	SN 0197 TPQ: 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	10 lb RQ (air); 1 lb RQ (land/water)
n-Hexane	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	SN 1340
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 1340 TPQ: 500 lb
Illinois - Toxic Air Contaminants	Present

New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1 lb RQ (air); 1 lb RQ (land/water)
<b>Ethylbenzene</b>	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Carcinogen, initial date 6/11/04
New Jersey Right-To-Know:	SN 0851
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Carcinogen; flammable - Third degree
New Jersey - Environmental Hazardous Substances List:	SN 0851 TPQ: 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
<b>Naphthalene</b>	
Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	SN 1322 SN 3758
Pennsylvania Right-To-Know:	Environmental hazard Present (particulate)
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Carcinogen
New Jersey - Environmental Hazardous Substances List:	SN 1322 TPQ: 500 lb (Reportable at the de minimis quantity of >0.1%)
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	100 lb RQ (air); 1 lb RQ (land/water)

**Canada DSL/NDSL Inventory:** This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

**Canadian Regulatory Information:** "This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations."

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Gasoline	B2,D2A,D2B	0.1%
Toluene	B2,D2A,D2B	0.1%
Ethyl Alcohol	B2,D2B	0.1%
Xylene (mixed isomers)	B2,D2A,D2B	m-, o-isomers 1.0%; p-isomer 0.1%
1,2,4 Trimethylbenzene	B3	1
Benzene	B2,D2A,D2B	0.1%
n-Hexane	B2,D2A,D2B	1%
Ethylbenzene	B2,D2A,D2B	0.1%
Naphthalene	B4,D2A	0.1%



NOTE: Not Applicable.

## 16. OTHER INFORMATION

Prepared By Toxicology and Product Safety  
Revision Date: 05/14/2015

**Revision Note:**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Emissions from the storage tank were estimated using TANKS. A white, horizontal, submerged filling, no controls, double walled, painted white, and total volume of 1000 gallons. The average consumption has been 2,700 gallons/month. For a sake of this analysis the monthly consumption rate was estimated higher at 3,500 gallons/month. During winter months the RVP of the gas is kept below 13 while during summer months (May->September) the RVP is kept below 11.

The following are the screen shots for the entry into TANKS.

Horizontal Tank

Identification | Physical Characteristics | Site Selection | Tank Contents | Monthly Calculations

**Dimensions:**

Shell Length (ft): 10.67

Shell Diameter (ft): 4

Working Volume (gal): 1,000.00

Turnovers per Year: 0.00

Net Throughput (gal/yr): 42,000.00

Is Tank Heated? No

Is the Tank Underground? No

**Shell Characteristics:**

Shell Color: Shade: White/White (D)

Shell Condition: Good (D)

**Breather Vent Settings:**

Vacuum Setting (psig): 0

Pressure Setting (psig): 0

Copy | Run Report | Save | Close | Help

Horizontal Tank

Identification | Physical Characteristics | Site Selection | Tank Contents | Monthly Calculations

Nearest Major City: Charleston, West Virginia

Daily Average Ambient Temperature (F): 54.58353

Annual Average Maximum Temperature (F): 65.75

Annual Average Minimum Temperature (F): 44.216687

Average Wind Speed (mph): 6.05

Annual Average Solar Insulation Factor (Btu/(ft<sup>2</sup>\*day)): 1,250.5725

Atmospheric Pressure (psia): 14.2535

Sort by State Name

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Blend of RVP, below 11 RVP May – Sept, below 13 RVP Oct-Apr

Horizontal Tank

Identification | Physical Characteristics | Site Selection | Tank Contents | Monthly Calculations

Chemical Category of Liquid: Petroleum Distillates  
Single or Multi-Component Liquid: Single

Chemical Name: Gasoline (RVP 11)  
CAS Number:   
Average Liquid Surface Temperature (F): 56.674352  
Minimum Liquid Surface Temperature (F): 51.309871  
Maximum Liquid Surface Temperature (F): 62.036233  
Bulk Liquid Temperature (F): 55.003333  
Vapor Pressure (psia) at Liquid Surface Temperature: 6.4082  
Liquid Molecular Weight: 92  
Vapor Molecular Weight: 66

Calculate Mixture Properties  
Delete Mixture  
Next Mixture >  
< Previous Mixture  
Add Mixture

Mixture 1 of 2

Copy Run Report Save Close Help

Horizontal Tank

Identification | Physical Characteristics | Site Selection | Tank Contents | Monthly Calculations

Chemical Category of Liquid: Petroleum Distillates  
Single or Multi-Component Liquid: Single

Chemical Name: Gasoline (RVP 13)  
CAS Number:   
Average Liquid Surface Temperature (F): 56.674352  
Minimum Liquid Surface Temperature (F): 51.309871  
Maximum Liquid Surface Temperature (F): 62.036233  
Bulk Liquid Temperature (F): 55.003333  
Vapor Pressure (psia) at Liquid Surface Temperature: 6.5261  
Liquid Molecular Weight: 92  
Vapor Molecular Weight: 62

Calculate Mixture Properties  
Delete Mixture  
Next Mixture >  
< Previous Mixture  
Add Mixture

Mixture 2 of 2

Copy Run Report Save Close Help

Horizontal Tank

Identification | Physical Characteristics | Site Selection | Tank Contents | Monthly Calculations

	Throughput	Mixture Name	
JAN: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	Annual Throughput Specified 42,000.00
FEB: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	
MAR: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	Total for Months 42,000.00
APR: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	
MAY: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 11)	Fill Mixture Names With First Mixture Name
JUN: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 11)	
JUL: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 11)	Distribute Throughput
AUG: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 11)	
SEP: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 11)	
OCT: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	
NOV: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	
DEC: <input checked="" type="checkbox"/>	3,500.00	Gasoline (RVP 13)	

Copy | Run Report | Save | Close | Help

Annual Emissions as estimated by TANKS:

**Annual report, Brief**

```
<TankName>Gas storage - Horizontal Tank</TankName>
<TankType>Horizontal Tank</TankType>
-<COMPONENT Type="Horizontal Tank">
<NAME>Gasoline (RVP 11) </NAME>
<WorkingLoss>168.73</WorkingLoss>
<BreathingLoss>127.20</BreathingLoss>
<TotalEmissions>295.94</TotalEmissions>
</COMPONENT>
-<COMPONENT Type="Horizontal Tank">
<NAME>Gasoline (RVP 13) </NAME>
<WorkingLoss>214.00</WorkingLoss>
<BreathingLoss>131.07</BreathingLoss>
<TotalEmissions>345.07</TotalEmissions>
```

**Monthly Report for July, Brief**

```
<TankName>Gas storage - Horizontal Tank</TankName>
<TankType>Horizontal Tank</TankType>
-<COMPONENT Type="Horizontal Tank">
<NAME>Gasoline (RVP 11) </NAME>
<WorkingLoss>35.18</WorkingLoss>
<BreathingLoss>27.47</BreathingLoss>
<TotalEmissions>62.65</TotalEmissions>
```

**Monthly Report for April, Brief**

```
<TankName>Gas storage - Horizontal tank</TankName>
<TankType>Horizontal Tank</TankType>
-<COMPONENT Type="Horizontal Tank">
<NAME>Gasoline (RVP 13) </NAME>
<WorkingLoss>33.89</WorkingLoss>
<BreathingLoss>27.15</BreathingLoss>
<TotalEmissions>61.05</TotalEmissions>
```

Table #1

Total emissions estimated by TANKS

	Working Losses Lbs	Breathing Losses Lbs	Total Losses Lbs	Total Losses Tons
May – Sep @ <11 RVP	168.73	127.2	295.94	0.1475
Oct – Apr @ < 13 RVP	214.0	131.07	345.07	0.1725
Total for year	382.73	258.27	641.01	0.3205
Highest Month, July	35.18	27.47	62.65	0.0313

Emission factors found in USEPA publication AP-42, Table 5.2.7, Evaporation Emissions from Gasoline Service Station Operations were used to estimate the displacement and spill losses from vehicle tank refueling.

Vehicle Displacement losses (no control): 11 lbs/1000 gallons transferred

Vehicle refueling spillage: 0.7 lbs/1000 gallons transferred

So for a monthly transfer rate of 3,500 gallons the estimated emissions increase by: 40.95 lbs

On an annual basis the emissions increase by 491.4 lbs (0.2457 tons) over those estimated by TANKS. The total estimated annual emissions then becomes  $0.3205 + 0.2557 = 0.5662$  tons

To estimate the maximum emissions during a hour, the working volume of the storage tank, 800 gallons, was used to during the month of July in TANKS generating the following 8.04 lbs of working losses plus breathing losses of 0.037 lbs ( $27.47/31/24=0.0369$  lbs):

<TankName>Gas storage - Horizontal Tank</TankName>

<TankType>Horizontal Tank</TankType>

<COMPONENT Type="Horizontal Tank">

<NAME>Gasoline (RVP 11) </NAME>

<WorkingLoss>8.04</WorkingLoss>

<BreathingLoss>27.47</BreathingLoss>

<TotalEmissions>35.51</TotalEmissions>



The Chemours Company  
Washington Works  
8480 DuPont Road  
PO Box 1217  
Washington, WV 26181

304-863-4000  
chemours.com

April 13, 2016

**CERTIFIED MAIL – 7014 1820 0001 2876 1994**  
**RETURN RECEIPT REQUESTED**

Mr. W. F. Durham, Director  
Division of Air Quality  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304-2345



**Permit Determination for the Addition of a Gasoline Storage Tank with Associated Dispensing Equipment to the Facilities, Construction and Support Area of Washington Works**

Dear Mr. Durham:

Attached you will find the Permit Determination forms for the assessment of permitting requirements for the addition of a nominal 1000 gallon gasoline storage tank with the associated fuel dispensing equipment. This equipment will be operated by the Facilities, Construction and Support area of Chemours Washington Works. An Attachment S form with associated supplemental information has been completed to allow the addition of the proposed installation into the Segment 12 of 14 portion of the Chemours Washington Works Title V operating Permit.

There is no process change associated with the installation of this tank and dispensing equipment for fueling on site users. The vessel and operation is subject to 45 CSR 21-23 and, as documented in the permit determination, is subject to the requirement of the mandatory use of a submerged fill pipe for the vessel and the recordkeeping requirement to document all fuel deliveries of gasoline for the site. It is proposed that these conditions, since they are independent of a requirement to have an R13 permit, may be added into the Title V directly based the 45 CSR 21 citations. This allows a permit determination to document the addition, as well as opening, of the Title V for inclusion of the referenced vessel and operation.

If you have questions or concerns with this permit determination application, please contact me by telephone at (304) 863-4448 or Mr. John J. Mentink by telephone at (304) 863-4033 or by email at [john.j.mentink@usa.Chemours.com](mailto:john.j.mentink@usa.Chemours.com).

Very truly yours,

Alison A. Crane  
EHS Senior Consultant  
Chemours Washington Works

AAC:jjm/slb  
Enclosure



These estimates were for the whole gas mixture. In Table #2 the amount of hazardous air pollutants are provided based upon the SDS of the gasoline mixture. Based upon the partial pressure of each at 100°F (the basis for RVP) the maximum amount of HAPs emitted can be estimated.

Table 2  
Hazardous Air Pollutants percentage

Name	CAS #	Maximum wt %	Vapor Pressure mm Hg @100°F	% of total vapor @ 13 RVP	% of total vapor @ 11 RVP
Toluene	108-88-3	13.5	58	1.82%	2.16%
Xylene	1330-20-7	9	17.5	0.37%	0.44%
Benzene	71-43-2	3.2	168	1.25%	1.49%
Hexane	110-54-3	2.7	258	1.62%	1.92%
Ethylbenzene	100-41-4	1.8	20	0.08%	0.1%
Napthalene	91-20-3	0.5	0	0%	0%
Total				5.14%	6.11%

Maximum HAPs per hour: [8.0769 lbs (from TANKS estimate) + 11.7 lbs (from vehicle fueling) \* 200 gallons/1000 gallons] \* 0.0611% (max concentration of HAPS) = 0.64 lbs/hr

Maximum HAPs per year: [641.01 lbs (from TANKS estimate) + 11.7 lbs (from vehicle fueling) \* 42,000 gallons/1000 gallons] \* 0.0611% (max concentration of HAPS) = 69.2 lbs/yr or 0.035 tons/yr

**Attachment S**  
**Title V Permit Revision Information**

<b>1. New Applicable Requirements Summary</b>	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input type="checkbox"/> Section 112(d) MACT standards (Subpart(s) _____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) <sup>(1)</sup>
<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program EGUs (45CSR26)
<sup>(1)</sup> If this box is checked, please include <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why <b>Compliance Assurance Monitoring</b> is not applicable: Source is too small for CAM applicability	