



SAFETY DATA SHEET

According to OSHA HCS 2012 (29 CFR 1910.1200)

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Natural Gas Condensate, Petroleum (Sour)
Other means of identification: Gas drip (sour), field liquids (sour), Petroleum field condensate (sour)
CAS Number: 64741-47-5
SDS Number: OKE009
Product type: Condensate
Identified uses: Industrial Use; Feedstock

Manufacturer: ONEOK, Inc.
100 W. Fifth Street
Tulsa, OK 74103

SDS Information:
Phone: (888) 417-6275
Fax: (918) 588-7543
URL: www.oneok.com

Emergency Health and Safety Number:
Chemtrec: (800) 424-9300 (24 hours)

SECTION 2: CHEMICAL HAZARDS IDENTIFICATION

GHS Classification:

H224 – Flammable liquids – Category 1
H304 – Aspiration Hazard – Category 1
H315 – Skin corrosion/irritation – Category 2
H331 – Acute toxicity, Inhalation – Category 3
H336 – Specific target organ toxicity (single exposure) – Category 3, Inhalation, Central Nervous System
H340 – Germ Cell Mutagenicity – Category 1B
H350 – Carcinogenicity – Category 1B
H361 – Reproductive toxicity – Category 2
H373 – Specific target organ toxicity (repeat exposure) – Category 2, Inhalation, Central Nervous System
H411 – Chronic aquatic toxicity – Category 2

GHS Label Elements

Hazard Symbol(s):



Signal Word:

Danger

Hazard Statement(s):

H224: Extremely flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H331: Toxic if inhaled.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.



H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs (Nervous system) through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/ hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharge.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash thoroughly after handling.
P271: Use only outdoors or in well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/eye protection/face protection.

Response:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353: IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.
P308 + P313: IF exposed or concerned: Get medical advice/attention
P331 Do NOT induce vomiting.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use dry chemical, carbon dioxide or foam to extinguish.
P391: Collect spillage.

Storage:

P403 +P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Disposal:

P501: Dispose of contents/container to approved disposal facility.
Contains poisonous hydrogen sulfide gas

Other Hazards:



SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	% By Weight
Hydrocarbons	64741-47-5	70-99
n-Hexane	110-54-3	5-25
Toluene	108-88-3	1-15
Xylenes	1330-20-7	1-12
Benzene	71-43-2	1-2
Hydrogen Sulfide	7783-06-4	0-1

All concentrations are percent by weight unless ingredient is a gas, gas concentrations are percent by volume. Data are typical values based on material tested, but may vary from sample to sample.

SECTION 4: FIRST AID MEASURES

Eye Contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove contact lenses if present and easy to do. Continue to rinse for at least 15 minutes. Get medical attention if eye irritation persists.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove victim from the source of exposure and into fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Skin Contact:

Immediately remove contaminated shoes and clothing. Wash skin with plenty of soap and water until no evidence of the chemical remains (at least 15 minutes). Seek immediate medical attention.

Ingestion:

Aspiration hazard: do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Seek immediate medical attention. Small amounts that accidentally enter the mouth should be rinsed out until the taste is gone.

Most Important Symptoms and Effects:

Acute: Headache, drowsiness, dizziness, loss of coordination, disorientation, fatigue, and skin and eye irritation

Delayed: Dry skin and possible irritation with repeated or prolonged dermal exposure, Refer to Section 11 – Toxicological Information

**Notes to Physician:**

At high concentrations, hydrogen sulfide may produce pulmonary edema, respiratory distress and/or respiratory paralysis. The first priority in treatment should be the establishment of adequate ventilation and administration of oxygen.

May sensitize the heart to epinephrine or other circulating catecholamines so that arrhythmias may occur. Careful consideration is essential preceding administration of epinephrine, cardiac stimulants or other treatment. If sympathomimetic are administered, observe for the development of cardiac arrhythmias.

SECTION 5: FIRE-FIGHTING MEASURES



NFPA Hazard Class:

Health – 2

Fire – 4

Reactivity – 0

Specific Hazard – N/A

Extinguishing Media:

Carbon dioxide or dry chemical is the recommended media. Flood large fires with fine water spray.

Specific Hazards arising from the chemical:

Extremely flammable, can be ignited by heat, spark, or flame. Do not expose to heat, sparks, flame, static, or other sources of ignition. Readily forms explosive air-vapor mixtures. The vapor is heavier than air. May release explosive vapors that can travel, be ignited at remote locations, and flash back. Containers may explode in fire.

Thermal Decomposition Products or Combustion:

Oxides of carbon, oxides of nitrogen, and oxides of sulfur may be formed.

Special Protective Actions for Fire-Fighters:

Products of combustion may contain carbon monoxide, carbon dioxide, or other toxic vapors. Do not enter enclosed area or confined space without proper protective equipment including respiratory protection.

Special Protective Equipment for Fire-Fighters:

Emergency responders should wear proper protective equipment and a positive pressure self-contained breathing apparatus.



SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Extremely flammable; Avoid heat, flames, sparks, and other sources of ignition. Spills of liquids can create a fire hazard and may form an explosive atmosphere. The vapor is heavier than air and can accumulate in low areas. Avoid breathing vapors, mist or gas. Stay upwind from release, and avoid direct contact. Ventilate closed spaces before entering. Notify persons downwind for large spills. Ventilate area and allow material to evaporate.

Environmental Precautions:

Prevent further release if it can be done safely. Prevent material from entering sewers and drains. If the material contaminates waterways or drains then notify appropriate authorities.

Methods and Material for Containment and Cleaning up:

Contain spillage using spark-proof tools and explosion-proof equipment. Place in container for disposal according to local / national regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:

Ground / bond any equipment used in handling the material. Only use non-sparking tools, keep away from heat, sparks, open flame or any other ignition source. Do not allow eating, drinking, or smoking in the area. Provide adequate ventilation. Use only explosion-proof electrical (ventilation, lighting, etc.) equipment. Empty containers retain product residue and can be hazardous, do not puncture or incinerate container.

Conditions for Safe Storage:

Store in accordance with local regulations. Store in a segregated and approved area that is cool, dry, well-ventilated, and away from direct sunlight or any ignition sources. Keep container tightly closed and sealed. Store separate from any incompatible material (Section 10).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	OSHA PEL (ppm)	ACGIH TLV (ppm)	Other
Hydrocarbons	None	None	None
n-Hexane	500	50	50 ppm REL (NIOSH) 1100 IDLH
Toluene	200, Ceiling 300	20	100 ppm REL (NIOSH) 500 IDLH (NIOSH)
Xylene	100	100 150 (STEL)	100 ppm REL (NIOSH) 900 IDLH (NIOSH)
Benzene	1.0, STEL 5	0.5,	0.1 ppm REL (NIOSH)



		2.5 (STEL)	500 ppm IDLH(NIOSH)
Hydrogen Sulfide	Ceiling 20	1.0 5.0 (STEL)	100 IDLH 10 ppm ceiling (NIOSH)

Engineering Controls:

General or local exhaust ventilation and other forms of engineering controls are the preferred means for keeping worker exposure to airborne contaminants below any recommended or statutory limits. If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

Hygiene Measures:

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

Eye/Face Protection:

Safety eyewear (such as splash goggles) that meets ANSI Z.87.1 should be used to avoid exposure to liquid splashes, mists, gases, or dusts. Face shields may be necessary if contact is possible.

Hand Protection:

Chemical resistant, impervious gloves should be worn at all times when handling chemical products. Consider the parameters specified by the glove manufacturer, check that the gloves are still retaining their protective properties prior to use. Gloves should be discarded if there is any degradation or breakthrough.

Body Protection:

Wear flame retardant anti-static protective clothing. When there is a risk of liquid exposure, wear cold insulating clothing.

Respiratory Protection:

A NIOSH approved air purifying respirator with an appropriate cartridge or canister may be appropriate under certain conditions where airborne concentrations are expected to exceed exposure limits. Appropriate respirator selection should be made by a qualified professional as part of a comprehensive respiratory program as described in 29 CFR 1910.134. Protection provided by air-purifying respirators is limited and should not be used in atmospheres deficient in oxygen or where airborne concentrations are immediately dangerous to life or health. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colorless	Flammability (Solid, gas):	No data
Physical Form:	Liquid	Upper Explosive Limit:	11%
Odor:	Gasoline with Rotten Egg	Lower Explosive Limit:	0.4%
Odor Threshold:	No data	Vapor Pressure:	No data
pH:	No data	Vapor Density (air=1):	3.4
Melting Point:	No data	Viscosity:	Not Determined
Boiling Point:	20° to 600° F (-29° to 316° C)	Partition Coefficient (n-octanol/water):	No data
Flash Point:	-40° F (-40° C)	Auto Ignition Temperature:	500° F (260 °C)
Evaporation Rate:	No data	Decomposition Temperature:	No data
Solubility in Water:	Negligible	Volatile Percent:	No data
Solubility in Other Solvents:	Hydrocarbons	Specific Gravity (Water =1):	0.5 to 0.75

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Stable at normal ambient temperatures and pressure
Chemical Stability:	Stable at normal ambient temperatures and pressure
Possibility of Hazardous Reactions:	Hazardous reactions are not anticipated
Conditions to Avoid:	Avoid all possible sources of ignition. Containers may rupture or explode if exposed to heat.
Incompatible Materials:	Avoid contact with strong oxidizing agents and strong reducing agents
Hazardous Decomposition Products:	Oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects:

Acute Toxicity:

Product Name	Result	Species	Dose	Exposure
Natural Gas Condensate, Petroleum (Sour)	Dermal LD ₅₀ , no data available			
Natural Gas Condensate, Petroleum (Sour)	Inhalation LC ₅₀ , no data available			
Hydrogen sulfide	Inhalation LC ₅₀ 444 ppm	Rat (male and female)		4 hour
n-Hexane	Inhalation LC ₅₀	Rat (male and female)	31.86 mg/L	4 hours

	(vapor) >31.86 mg/L	female)		
n-Hexane	Dermal LD ₅₀ > 2,000 mg/kg	Rat (male and female)		
Toluene	Oral LD ₅₀ >5,000 mg/kg	Rat (male)	0, 4000, 4560, 5200, 5930, or 6760 mg/kg	
Toluene	Inhalation LC ₅₀ (vapor) > 20 mg/L	Rat (male and female)	7, 31.6, 52.2, 78.3, 104.4 mg/L	4 hours
Toluene	Dermal LD ₅₀ > 5,000 mg/kg	Rabbit (male)		
Xylene	Oral LD ₅₀ 3523 mg/kg (male)> 4,000 mg/kg (female)	Rat (male and female)		
Xylene	Inhalation LC ₅₀ (vapor) 13,700 ppm	Rat (male)		
Benzene	Oral LD ₅₀ > 2,000 mg/kg	Rat (male)		
Benzene	Dermal LD ₅₀ >8,260 mg/kg	Rabbit		
Benzene	Inhalation LC ₅₀ (vapor) 13,700 ppm	Rat (female)	11500-15500 ppm	4 hours

- Skin Irritation/Corrosion:** Irritating to the skin.
- Serious Eye Damage/Irritation:** Vapors may cause eye irritation.
- Sensitization:** Not expected to be a respiratory or skin sensitizer
- Mutagenicity:** May cause heritable genetic effects (Benzene).
- Carcinogenicity:** May cause cancer
- Reproductive Toxicity:** May impair fertility at doses which produce other toxic effects.
- Developmental/Teratogenicity:** Causes fetotoxicity at doses which are maternally toxic.
- Specific Target Organ Toxicity (single exposure):** May cause central nervous system effects following single exposure.
- Specific Target Organ Toxicity (repeated exposure):** May cause central or peripheral nervous system effects following repeated exposure.
- Aspiration Hazard:** May be fatal if swallowed and enters airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.



Information on the Likely Routes of Exposure:

Potential Acute Health Effects:

- Eye Contact:** May cause eye irritation at high vapor concentrations.
- Inhalation:** May cause drowsiness and dizziness. Contains poisonous hydrogen sulfide gas.
- Skin Contact:** May cause irritation.
- Ingestion:** May cause severe lung damage or even death if swallowed and enters airways.

Symptoms related the Physical, Chemical and Toxicological Characteristics:

High concentrations may cause central nervous system depression resulting in headaches, drowsiness, dizziness, nausea and loss of coordination. Contains poisonous hydrogen sulfide gas. Acute exposure to hydrogen sulfide can result in irritation of the eyes, nose, throat and respiratory tract, blurred vision and pulmonary edema. Severe exposures can result in nausea, headaches, disorientation, irregular heartbeats, convulsions, respiratory failure and death.

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure:

Central nervous system effects and skin irritation; may cause reproductive, mutagenic, carcinogenic effects.

Potential Chronic Health Effects:

- General:** May cause central nervous system effects
- Carcinogenicity:** May cause cancer. Presence of known human carcinogen.
- Mutagenicity:** May cause heritable genetic effects.
- Teratogenicity:** May cause harm to the unborn child.
- Developmental Effects:** May cause adverse effects on development
- Fertility Effects:** May impair fertility at doses which produce other toxic effects

Numerical Measures of Toxicity:

Acute Toxicity Estimates: Not available

Component Toxicology:

Mutagenicity:

Component	Type of Study	In Vitro/In Vivo	Metabolic Activation	Result
Unleaded gasoline	Ames Test	In Vitro	With and Without	Negative
n-Hexane	Ames Test	In Vitro	With and without	Negative
n-Hexane	Chromosome Aberration	In Vivo	Not Applicable	Negative
Benzene	Cell transformation, gene mutation	In Vitro	Without	Positive
Benzene	Ames Test, chromosome	In Vitro	Without	Negative



aberration, sister
chromatid exchange,
unscheduled DNA
synthesis

Repeated Dose (Inhalation):

Hydrocarbons (64741-47-5): No systemic toxicity effects were observed in male or female rats exposed by inhalation to 0, 2000, 10000, or 20000 mg/m³ baseline gasoline vapor condensate (similar material) for 6 hours/day, 7 days/week for 28 days. A NOAEC of 20000 mg/m³ was determined for systemic effects based on this study.

n-Hexane (110-54-3): Mice were exposed by inhalation to 0, 500, 1000, 4000, or 10000 ppm n-hexane for 6 hours/day, 5 days/week for 13 weeks. Decrease locomotion was observed in female mice at 1000 ppm. Nasal lesions were seen in females in all exposure groups and males exposed to 1000 ppm. The LOAEC was determined to be 500 ppm for females and 1000 ppm for males. The NOAEC for males was 500 ppm.

Toluene (108-88-3): Male and female rats were exposed by inhalation to 0, 30, 100 or 300 ppm 6 hours/day, 5 days/week for 6, 12 or 18 months. There were no toxicologically significant effects on body weight, clinical signs, ophthalmoscopy, hematology, blood and urine clinical chemistry, organ weights or gross and microscopic pathology. The no observed adverse effect concentration (NOAEC) for chronic systemic and local toxicity from this study was 300 ppm (1,131 mg/m³).

Toluene (108-88-3): Male and female mice were orally dosed 312, 625, 1250, 2500 or 5000 mg toluene/kg in corn oil for 13 weeks. All mice at 5,000 mg/kg died during the first week, 4 male and 4 female mice that received 2,500 mg/kg and one female mouse that received 1,250 mg/kg died before termination of the study. There were no treatment related effects on hematological or serum clinical analyses or urinalyses. Increased absolute and relative liver weight in female mice at the lowest dose level, 312 mg/kg, was not accompanied by histopathological effect, and these findings are therefore interpreted as signs of metabolic activity. For this study, the no observed adverse effect level (NOAEL) was considered to be 625 mg/kg.

Benzene (71-43-2): Repeated inhalation of male and female rats to 0, 1, 10, 30 or 300 ppm benzene for 6 hours/day, 5 days/week for 13 weeks resulted in decreased lymphocyte counts and increase in neutrophil percentages. The NOAEC was 30 ppm for both male and female rats.

Hydrogen sulfide (7783-06-4): Male and female rats were exposed to 0, 10.1, 30.5 or 80 ppm of hydrogen sulfide by inhalation for 6 hours/day, five days/week for 90 days. The LOAEL for systemic toxicity was 80 ppm based on decreased body weight gain. The LOAEL for olfactory neuronal loss was determined to be 30.5 ppm.

Reproductive/Developmental Toxicity:

Hydrocarbons (64741-47-5): No developmental effects were observed in rats exposed by inhalation to 0, 2653, 7960, or 23900 mg/m³ unleaded gasoline vapor condensate (similar material) for 6 hours/day through day 20 of gestation. A NOAEL of 23900 mg/m³ was determined for developmental effects.

n-Hexane (110-54-3): Male rats exposed by inhalation to 5000 ppm n-hexane for 6 weeks showed complete atrophy of the seminiferous tubules. Female mice were exposed to 0, 200, 1000 or 5000 ppm n-hexane for 20 hours/day during gestational days 6-17. There was a significant reduction in gravid



uterine weight and increase in intrauterine death in the 200 ppm group. There was no NOAEC established.

Toluene (108-88-3): In a combined two-generation fertility and teratogenicity inhalation study, male and female rats were exposed to toluene at 0, 100, 500 or 2,000 ppm (0, 375, 1,875 or 7,500 mg/m³) for 6 hours/day, 7 days/week during pre-mating, mating, gestation, and lactation. Overall, toluene did not induce adverse effects on fertility, reproductive performance, or maternal or pup behaviors. Reduced fetal body weight and skeletal variations were observed in the 2,000 ppm exposure group. Based on this study, the NOAEC for parental toxicity and off-spring toxicity was 500 ppm (1,875 mg/m³). The NOAEC for effects on fertility was 2,000 ppm (7,500 mg/m³), the highest dose tested.

Benzene (71-43-2): Rats were exposed to 0, 1, 10, 40 or 100 ppm benzene by inhalation for 6 hours/days up to day 20 of gestation. Reduced fetal weights and lengths were observed at 100 ppm. The NOAEC for slight fetotoxicity was 40 ppm.

Hydrogen sulfide (7783-06-4): Male and female rats were exposed to 0, 10, 30 or 80 ppm of hydrogen sulfide by inhalation for 6 hours/day, five days/week for two weeks before breeding. Exposure continued during the two week mating period and then gestational days 0 through 19. No significant effects on reproductive performance were observed. The NOAEC for reproductive and developmental toxicity was established at 80 ppm.

Carcinogenicity:

Hydrocarbons (64741-47-5): No carcinogenic effects were observed in mice exposed to 0.05 ml unleaded gasoline (similar material) applied dermally three times a week for 102 weeks.

Toluene (108-88-3): Male and female rats were exposed by inhalation to 0, 600, or 1,200 ppm toluene (0, 2,261, 4,522 mg/m³) 6.5 hours/day, 5 days/week for two years. No compound-related clinical signs were noted, and no significant differences in survival were observed between any groups of either sex. There were no substance-related increases in any tumor types. Based on this study, the NOAEC for carcinogenicity was determined to be 1,200 ppm (4,522 mg/m³).

Benzene (71-43-2): Benzene inhalation at 300 ppm for 6 hours/day, 5 days/week for 16 weeks was carcinogenic in female mice. An increased incidence of lymphoma/leukemia and Zymbal gland and ovarian tumors was observed.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	Fish: Expected to be toxic – 96 hr LL50 in Pimephales promelas = 8.2 mg/l (based on similar material) Invertebrates: Expected to be toxic – 48 hr EL50 in Daphnia magna = 4.5 mg/l (based on similar material) Algae: Expected to be toxic – 72 hr LL50 in Pseudokirchnerella subcapitata = 3.1 mg/l (based on similar material) Toxic to aquatic life with long lasting effects.
Persistence and Degradation:	Expected to be inherently biodegradable.
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	No known significant effects.



SECTION 13: DISPOSAL CONSIDERATIONS

Empty containers or liners may retain some product residues. Do not puncture or incinerate container. This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. However, it would likely be identified as a federally regulated RCRA hazardous waste for the following characteristic (s); ignitability and toxic characteristics (Benzene). Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name: Hydrocarbons, liquid, n.o.s
UN Number: UN3295
Hazard Class: 3
Packing Group: PGI*
Marine Pollutant:

*If initial boiling point is greater than 35°C, assign PGII instead of PGI

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

US Federal Regulations:

United States Inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Some components listed

Ingredients: Hexane (110-54-3)
Toluene (108-88-3)
Xylene (1330-20-7)
Benzene (71-43-2)
Hydrogen sulfide (7783-06-4)

Clean Air Act Section 112(r) for Accidental Release Prevention: Some components listed

Ingredients: Hydrogen sulfide (7783-06-4)

Clean Air Act Section 602 Class I Substances: Components not listed

Clean Air Act Section 602 Class II Substances: Components not listed



DEA List I Chemicals (Precursor Chemicals): Components not listed

SARA 302/304: No products were found for composition/information on ingredients.

SARA 304 RQ: Not applicable

SARA 311/312 Classification: Fire hazard; immediate (acute) health hazard; and delayed (chronic) health hazard.

Composition/Information on Ingredients:

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Hydrocarbons	70-99	Yes	No	No	Yes	No
n-Hexane	5-25	Yes	No	No	Yes	Yes
Toluene	1-15	Yes	No	No	Yes	Yes
Xylene	1-12	Yes	No	No	Yes	Yes
Benzene	1-2	Yes	No	No	Yes	Yes
Hydrogen sulfide	1	Yes	No	No	Yes	Yes

SARA 313: This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

Product Name	CAS Number	%
Hexane	110-54-3	5-25
Toluene	108-88-3	1-15
Xylene	1330-20-7	1-12
Benzene	71-43-2	1-2
Hydrogen sulfide	7783-06-4	1

State Regulations:

Massachusetts: Right to Know Substance List

Ingredients: Hexane (110-54-3)
Toluene (108-88-3)
Xylene (1330-20-7)
Benzene (71-43-2)
Hydrogen sulfide (7783-06-4)

New York: Right to Know Hazardous Substance List

Ingredients: Hexane (110-54-3)
Toluene (108-88-3)
Xylene (1330-20-7)
Benzene (71-43-2)



Hydrogen sulfide (7783-06-4)

New Jersey: Right to Know Hazardous Substance List

Ingredients: Hexane (110-54-3)
Toluene (108-88-3)
Xylene (1330-20-7)
Benzene (71-43-2)
Hydrogen sulfide (7783-06-4)

Pennsylvania: Right to Know Substance List

Ingredients: Hexane (110-54-3)
Toluene (108-88-3)
Xylene (1330-20-7)
Benzene (71-43-2)
Hydrogen sulfide (7783-06-4)

California Proposition 65: Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer and birth defects or other reproductive effects.

Ingredients	Type of Toxicity
Benzene(71-43-2)	Cancer Developmental , Male
Toluene (108-88-3)	Developmental Toxicant

SECTION 16: OTHER INFORMATION

HMIS Hazard Ratings:

Health – 2
Flammability – 4
Physical Hazards – 0
Personal Protection – Condition Dependent

H₂S TOXICITY CHART			
CONCENTRATION			PHYSICAL EFFECTS
Percent	Parts per Million	Grains per 100 scf	
0.001	10	0.63	Possible eye irritation
0.002	20	1.26	OSHA Ceiling level; safe for 8 hour exposure
0.005	50	3.14	OSHA Peak level; exposure to concentrations between Ceiling and Peak level acceptable only for a 10 minute period per 8-hours



0.01	100	6.29	NIOSH's IDLH level (Immediately Dangerous to Life or Health); coughing, eye irritation, loss of sense of smell in 3-15 minutes
0.02	200	12.58	Significant eye & respiratory irritation
0.05	500	31.45	Dizziness; breathing ceases within a few minutes
0.07	700	44.02	Breathing ceases; death will result if not rescued quickly
0.10	1,000	62.89	Death
1	10,000	628.93	

ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists	NIOSH	National Institute of Occupational Safety and Health
ANSI	American National Standards Institute	NTP	National Toxicology Program
CAS	Chemical Abstract Service	OSHA	Occupational Safety & Health Administration
CFR	Code of Federal Regulations	PEL	Permissible Exposure Limit
DEA	Drug Enforcement Administration	REL	Recommended Exposure Limit
GHS	Globally Harmonized System of Classification and Labeling of Chemicals	RQ	Reportable Quantity
HMIS	Hazardous Materials Information System	SARA	Superfund Amendments and Reauthorization Act of 1986 Title III
IDLH	Immediately Dangerous to Life and Health	SDS	Safety Data Sheet
LC ₅₀	Lethal concentration 50	STEL	Short Term Exposure Limit
LD ₅₀	Lethal Dose 50	TLV	Threshold Limit Value
IARC	International Agency For Research On Cancer	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NOAEC	No Observed Adverse Effect Concentration	US	United States

To the best of our knowledge, the information contained herein is accurate. However, neither ONEOK, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.