Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

V401 Oil Process Stream

Product Code

Prefix 07

Synonyms

Petroleum hydrocarbons.

Product Use Recommended Use

If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149

Phone: 1-800-669-5740
Emergency Phone #: 1-800-468-1760
www.safey-kleen.com

Issue Date

June 4, 2020

Supersedes Issue Date

May 5, 2016

Original Issue Date

September 4, 2013

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States

Flammable Liquids - Category 2
Aspiration Hazard - Category 1
Acute Toxicity - Inhalation - Dust/Mist - Category 4
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1A
Reproductive Toxicity - Category 1A

GHS Label Elements

Symbol(s)

Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Harmful if inhaled.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment. Take action to prevent static discharges.
Use non-sparking tools. Use only outdoors or in a well-ventilated area. Use Personal Protective equipment as required. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray.

Response

In case of fire: Use water, carbon dioxide, regular foam, regular dry chemical. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical attention if needed. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if needed. IF IN EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Rinse cautiously with water for several minutes. Get medical attention, if needed. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

Storage

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

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
64741-41-9	Naphtha, petroleum, heavy straight-run	0-99
64741-44-2	Distillates, petroleum, straight-run middle	0-99
1330-20-7	Xylenes (o-, m-, p- isomers)	0-1
108-88-3	Toluene	0-1
71-43-2	Benzene	0-1
95-63-6	Benzene, 1,2,4-trimethyl-	0-1
100-41-4	Benzene, ethyl-	0-1
108-67-8	1,3,5-Trimethylbenzene	0-1
7783-06-4	Hydrogen sulfide	<1

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.

Skin

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention, if needed.

Eyes

IF IN EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Rinse cautiously with water for several minutes. Get medical attention, if needed.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. Call 1-800-468-1760 for additional information.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Harmful if inhaled. May cause drowsiness or dizziness.

Delayed

May cause genetic defects. May cause cancer. May damage fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water, carbon dioxide, regular foam, regular dry chemical.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Fire may produce irritating, poisonous and/or corrosive fumes. Containers may rupture or explode if exposed to heat. Empty product containers may retain product residue and can be dangerous.

Hazardous Combustion Products

Oxides of carbon, hydrogen sulfide.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Keep unnecessary people away, isolate hazard area and deny entry. Empty containers may retain product residue including flammable/explosive vapors. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Keep storage containers cool with water spray. Do not use high-pressure water streams. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements, or confined areas. Vapor-suppressing foam may be used to control vapors. Absorb with earth, sand or other non-combustible material and transfer to container. Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection. Avoid breathing vapors or fumes. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed.

Conditions for Safe Storage, Including any Incompatibilities

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

Further information on storage conditions: Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

Incompatible Materials

Oxidizing materials.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Xylenes (o-, m-, p- isomers)	**1330-20-7**
Alberta; New Brunswick	100 ppm TWA ; 434 mg/m3 TWA; 150 ppm STEL ; 651 mg/m3 STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	100 ppm TWA; 150 ppm STEL
Manitoba	100 ppm TWA
Quebec	100 ppm TWAEV ; 434 mg/m3 TWAEV; 150 ppm STEV ; 651 mg/m3 STEV
Yukon	100 ppm TWA ; 435 mg/m3 TWA; 150 ppm STEL ; 650 mg/m3 STEL Skin notation
ACGIH:	100 ppm TWA; 150 ppm STEL

OSHA (US):	100 ppm TWA ; 435 mg/m3 TWA
Toluene	**108-88-3**
Alberta	50 ppm TWA ; 188 mg/m3 TWA; Substance may be readily absorbed through intact skin
British Columbia; Nova Scotia; Ontario; Prince Edward Island	20 ppm TWA
Manitoba	20 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	50 ppm TWA ; 188 mg/m3 TWA; Skin - potential for cutaneous absorption
Northwest Territories; Nunavut	50 ppm TWA; 60 ppm STEL; Skin notation
Quebec	50 ppm TWAEV ; 188 mg/m3 TWAEV; Skin designation
Saskatchewan	50 ppm TWA; 60 ppm STEL; Potentially harmful after absorption through skin or mucous membranes
Yukon	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL Skin notation
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL; 500 ppm IDLH
OSHA (US):	200 ppm TWA ; 300 ppm Ceiling
Benzene	**71-43-2**
Alberta	0.5 ppm TWA ; 1.6 mg/m3 TWA; 2.5 ppm STEL ; 8 mg/m3 STEL Substance may be readily absorbed through intact skin
British Columbia	0.5 ppm TWA; Skin notation; 2.5 ppm STEL
Manitoba	0.5 ppm TWA; Skin - potential for cutaneous absorption; Skin - potential significant contribution to overall exposure by the cutaneous route
New Brunswick	0.5 ppm TWA ; 1.6 mg/m3 TWA; 2.5 ppm STEL ; 8 mg/m3 STEL Skin - potential for cutaneous absorption
Nova Scotia	0.5 ppm TWA; 2.5 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route
Ontario	0.5 ppm TWA; 2.5 ppm STEL Danger of cutaneous absorption

Prince Edward Island	0.5 ppm TWA; 2.5 ppm STEL
Quebec	1 ppm TWAEV ; 3 mg/m3 TWAEV; 5 ppm STEV ; 15.5 mg/m3 STEV
Yukon	10 ppm Ceiling ; 32 mg/m3 Ceiling
ACGIH:	0.5 ppm TWA; 2.5 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route
NIOSH:	0.1 ppm TWA; 1 ppm STEL; 500 ppm IDLH
OSHA (US):	10 ppm TWA applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028 ; 1 ppm TWA; 5 ppm STEL (See 29 CFR 1910.1028) 15 min ; 25 ppm Ceiling; 0.5 ppm Action Level ; 1 ppm TWA
Benzene, ethyl-	**100-41-4**
Alberta; New Brunswick;	100 ppm TWA ; 434 mg/m3 TWA; 125 ppm STEL ; 543 mg/m3 STEL
British Columbia; Manitoba; Ontario; Prince Edward Island	20 ppm TWA
Northwest Territories; Nunavut; Saskatchewan	100 ppm TWA; 125 ppm STEL
Nova Scotia	20 ppm TWA
Quebec	20 ppm TWAEV
Yukon	100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL; 800 ppm IDLH (10% LEL); Possibility of significant uptake through the skin; 200 ppm STEL ; 884 mg/m3 STEL
OSHA (US):	100 ppm TWA ; 435 mg/m3 TWA
1,3,5-Trimethylbenzene	**108-67-8**
NIOSH:	25 ppm TWA ; 125 mg/m3 TWA
Hydrogen Sulfide	**7783-06-4**
Alberta, New Brunswick	10 ppm TWA ; 14 mg/m3 TWA; 15 ppm Ceiling ; 21 mg/m3 Ceiling
British Columbia	10 ppm Ceiling
Manitoba	1 ppm TWA

Northwest Territories, Nunavut, Ontario, Saskatchewan	10 ppm TWA; 15 ppm STEL
Nova Scotia, Prince Edward Island	1 ppm TWA; 5 ppm STEL
Quebec	10 ppm TWAEV ; 14 mg/m3 TWAEV; 15 ppm STEV ; 21 mg/m3 STEV
Yukon	10 ppm TWA ; 15 mg/m3 TWA; 15 ppm STEL ; 27 mg/m3 STEL
ACGIH	1 ppm TWA; 5 ppm STEL
NIOSH	10 ppm Ceiling 10 min; 15 mg/m3 Ceiling 10 min; 100 ppm IDLH
OSHA (US)	20 ppm Ceiling

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Xylenes (o-, m-, p- isomers) (1330-20-7)

1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Toluene (108-88-3)

0.02 mg/l Medium: blood Time: prior to last shift of workweek Parameter: Toluene ; 0.03 mg/l Medium: urine Time: end of shift Parameter: Toluene ; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

Benzene (71-43-2)

25 µg/g creatinine Medium: urine Time: end of shift Parameter: S-Phenylmercapturic acid (background); 500 µg/g creatinine Medium: urine Time: end of shift Parameter: t,t-Muconic acid (background)

Benzene, ethyl- (100-41-4)

0.15 g/g creatinine Medium: urine Time: end of shift Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.

Respiratory Protection

Sense of smell becomes rapidly fatigued and cannot be relied upon to warn of the continuous presence of hydrogen sulfide. Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of hydrogen sulfide may exceed applicable exposure limits. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Skin Protection/Glove Recommendations

Wear appropriate chemical resistant gloves. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing. When products are heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Lab coat or apron. Safety glasses, Gloves, and Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light brown liquid	**Physical State**	Not available
Odor	Petroleum odor	**Color**	Not available.
Odor Threshold	Not available.	**pH**	Not available
Melting Point	Not available	**Boiling Point**	53.9 - 391.7 °C (129 – 737.06°F)
Boiling Point Range	Not available	**Freezing point**	Not available
Evaporation Rate	Not available	**Flammability (solid, gas)**	Not available
Autoignition Temperature	Not available.	**Flash Point**	0.56°C (31°F)
Lower Explosive Limit	Not available	**Decomposition temperature**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Not available.
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	Not available
Water Solubility	Not available	**Partition coefficient: n-octanol/water**	Not available
Viscosity	1.32 cSt 100 °C	**Kinematic viscosity**	Not available
Solubility (Other)	Not available	**Density**	Not available
Molecular Weight	Not available		

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Do not pressurize, cut, weld, braze, solder, drill, or grind containers.

Incompatible Materials

Oxidizing materials.

Hazardous decomposition products

Burning may produce oxides of carbon, hydrogen sulfide.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Harmful if inhaled. May cause drowsiness or dizziness.

Skin Contact

May cause slight irritation.

Eye Contact

May cause slight irritation.

Ingestion

May be fatal if swallowed and enters airways.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Distillates, petroleum, straight-run middle (64741-44-2)

Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg; Inhalation LC50 Rat 1.78 mg/L 4 h

Xylenes (o-, m-, p- isomers) (1330-20-7)

Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit >4350 mg/kg; Inhalation LC50 Rat 29.08 mg/L 4 h

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg; Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h

Benzene (71-43-2)

Oral LD50 Rat 810 mg/kg; Dermal LD50 Rabbit >8200 mg/kg; Inhalation LC50 Rat 44.66 mg/L 4 h

Benzene, 1,2,4-trimethyl- (95-63-6)

Oral LD50 Rat 3280 mg/kg; Dermal LD50 Rabbit >3160 mg/kg (no deaths occurred); Inhalation LC50 Rat 18 g/m3 4 h

Benzene, ethyl- (100-41-4)

Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15400 mg/kg; Inhalation LC50 Rat 17.4 mg/L 4 h

1,3,5-Trimethylbenzene (108-67-8)

Inhalation LC50 Rat 24 g/m3 4 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Oral	> 2000 mg/kg

Immediate Effects

May be fatal if swallowed and enters airways. Harmful if inhaled.

Delayed Effects

May cause genetic defects. May cause cancer. May damage fertility or the unborn child.

Irritation/Corrosivity Data

No information available for the product.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

Xylenes (o-, m-, p-isomers)	**1330-20-7**
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable))
Toluene	**108-88-3**
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable))
Benzene	**71-43-2**
ACGIH:	A1 - Confirmed Human Carcinogen
IARC:	Monograph 120 [2018] ; Monograph 100F [2012] ; Supplement 7 [1987] ; Monograph 29 [1982] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen
DFG:	Category 1 (causes cancer in man)
OSHA:	Present
OSHA:	see 29 CFR 1910.1028
NIOSH:	potential occupational carcinogen
Benzene, ethyl-	**100-41-4**
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 4 (no significant contribution to human cancer)
OSHA:	Present

May cause cancer.

Germ Cell Mutagenicity

May cause genetic defects.

Tumorigenic Data

No data available

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Central nervous system.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing cardiovascular, kidneys, liver, respiratory tract (nose, throat, and lungs), central nervous system, blood, and eye and/or skin disorders may have increased susceptibility to the effects of exposure.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Naphtha, petroleum, heavy straight-run	**64741-41-9**
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
Xylenes (o-, m-, p- isomers)	**1330-20-7**
Fish:	LC50 96 h Pimephales promelas 13.4 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static]; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 19 mg/L; LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static]; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static]; LC50 96 h Cyprinus carpio 780 mg/L [semi-static]; LC50 96 h Cyprinus carpio >780 mg/L; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static]
Invertebrate:	EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L
Toluene	**108-88-3**
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [Static] EPA ; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
Benzene	**71-43-2**
Fish:	LC50 96 h Pimephales promelas 10.7 - 14.7 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 5.3 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 22.49 mg/L [static]; LC50 96 h Poecilia reticulata 28.6 mg/L [static]; LC50 96 h Pimephales promelas 22330 - 41160 µg/L [static]; LC50 96 h Lepomis macrochirus 70000 - 142000 µg/L [static]

Algae:	EC50 72 h Pseudokirchneriella subcapitata 29 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 8.76 - 15.6 mg/L [Static] EPA ; EC50 48 h Daphnia magna 10 mg/L IUCLID
Benzene, 1,2,4-trimethyl-	**95-63-6**
Fish:	LC50 96 h Pimephales promelas 7.19 - 8.28 mg/L [flow-through]
Invertebrate:	EC50 48 h Daphnia magna 6.14 mg/L IUCLID
Benzene, ethyl-	**100-41-4**
Fish:	LC50 96 h Oncorhynchus mykiss 11 - 18 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static]; LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 32 mg/L [static]; LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static]; LC50 96 h Poecilia reticulata 9.6 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata >438 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static] EPA ; EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 1.8 - 2.4 mg/L IUCLID
1,3,5-Trimethylbenzene	**108-67-8**
Fish:	LC50 96 h Pimephales promelas 3.48 mg/L
Hydrogen sulfide	**7783-06-4**
Fish	LC50 96 Hr Lepomis macrochirus 0.0448 mg/L [flow-through]; LC50 Pimephales promelas 96 Hr 0.016 mg/L [flow-through]

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: PETROLEUM DISTILLATES, N.O.S. , (Contains: Distillates (petroleum) , Petroleum naphtha)
Hazard Class: 3
UN/NA #: UN1268
Packing Group: II
Required Label(s): 3
Marine pollutant

IATA Information:
Shipping Name: PETROLEUM DISTILLATES, N.O.S. , (Contains: Distillates (petroleum) , Petroleum naphtha)
Hazard Class: 3
UN#: UN1268
Packing Group: II
Required Label(s): 3
Marine pollutant

ICAO Information:
Shipping Name: PETROLEUM DISTILLATES, N.O.S. , (Contains: Distillates (petroleum) , Petroleum naphtha)
Hazard Class: 3
UN#: UN1268
Packing Group: II
Required Label(s): 3
Marine pollutant

IMDG Information:
Shipping Name: PETROLEUM DISTILLATES, N.O.S. , (Contains: Distillates (petroleum) , Petroleum naphtha)
Hazard Class: 3
UN#: UN1268
Packing Group: II
Required Label(s): 3
Marine pollutant

TDG Information:
Shipping Name: PETROLEUM DISTILLATES, N.O.S. , (Contains: Distillates (petroleum) , Petroleum naphtha)
Hazard Class: 3
UN#: UN1268
Packing Group: II
Required Label(s): 3
Marine pollutant

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Xylenes (o-, m-, p- isomers)	**1330-20-7**
IBC Code:	Category Y

Toluene	**108-88-3**
IBC Code:	Category Y
Benzene	**71-43-2**
IBC Code:	Category Y ; Category Y (>=10% or more mixture ;for mixtures containing no other components with safety hazards and where the pollution category is Y or less)
Benzene, ethyl-	**100-41-4**
IBC Code:	Category Y

Section 15 - REGULATORY INFORMATION

Canada Regulations

CEPA - Priority Substances List

Xylenes (o-, m-, p- isomers)	**1330-20-7**
	Priority Substance List 1 (substance not considered toxic)
Toluene	**108-88-3**
	Priority Substance List 1 (substance not considered toxic)
Benzene	**71-43-2**
	Priority Substance List 1 (substance considered toxic)

Ozone Depleting Substances

None of this product's components are on the list.

Council of Ministers of the Environment - Soil Quality Guidelines

Xylenes (o-, m-, p-isomers)	**1330-20-7**
Residential and Parkland	11 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 2.4 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 11 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture,

	porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 2.4 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur)
Toluene	**108-88-3**
Residential and Parkland	0.37 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.08 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.37 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.08 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur)
Benzene	**71-43-2**
Residential and Parkland	0.03 mg/kg coarse (surface (<=1.5 m), 0.00001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.0068 mg/kg fine (surface (<=1.5 m), 0.00001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.03 mg/kg coarse (subsoil (>1.5 m), 0.00001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.0068 mg/kg fine (subsoil (>1.5 m), 0.00001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a

	circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.0095 mg/kg coarse (surface (<=1.5 m), 0.000001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.0068 mg/kg fine (surface (<=1.5 m), 0.000001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.011 mg/kg coarse (subsoil (>1.5 m), 0.000001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information); 0.0068 mg/kg fine (subsoil (>1.5 m), 0.000001 incremental risk, this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. Consult factsheet for additional information)
Benzene, ethyl-	**100-41-4**
Residential and Parkland	0.082 mg/kg coarse (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.018 mg/kg fine (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.082 mg/kg coarse (subsoil (>1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.018 mg/kg fine (subsoil (>1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur)

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Toluene	**108-88-3**
Marine Aquatic Life	215 µg/L
Benzene	**71-43-2**
Marine Aquatic Life	110 µg/L
Benzene, ethyl-	**100-41-4**
Marine Aquatic Life	25 µg/L

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Xylenes (o-, m-, p- isomers)	**1330-20-7**
SARA 313:	1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
Toluene	**108-88-3**
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
Benzene	**71-43-2**
SARA 313:	0.1 % de minimis concentration
CERCLA:	10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
Benzene, 1,2,4-trimethyl-	**95-63-6**
SARA 313:	1 % de minimis concentration
Benzene, ethyl-	**100-41-4**
SARA 313:	0.1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories:

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Reactivity:** No

Component Analysis - Inventory

Naphtha, petroleum, heavy straight-run (64741-41-9)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	No	Yes	Yes	No	Yes	Yes

Distillates, petroleum, straight-run middle (64741-44-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	No	Yes	Yes

Xylenes (o-, m-, p- isomers) (1330-20-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes	Yes	Yes	Yes	Yes	Yes	Yes

Toluene (108-88-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes	Yes	Yes	Yes	Yes	Yes	Yes

Benzene (71-43-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2

Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
Yes		Yes	Yes	Yes	Yes	Yes	Yes	

Benzene, 1,2,4-trimethyl- (95-63-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	No	Yes	Yes	

Benzene, ethyl- (100-41-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	Yes	Yes	Yes	

1,3,5-Trimethylbenzene (108-67-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	Yes	Yes	Yes	

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 3 Instability: 0 Other:
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Regulatory review and update.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.