

California P-III Certification Fuel

Version 4.3

CTION 1: Identification of	the su	bstance/mixture and of the company/undertaking
Product information		
Product Name Material		California P-III Certification Fuel 1064419, 1064416, 1064418, 1064415, 1083828, 1028367
Use	:	Engine Testing
Company	:	Chevron Phillips Chemical Company LP Specialty Chemicals 10001 Six Pines Drive The Woodlands, TX 77380
Emergency telephone:		
EUROPE: BIG +32.14. Mexico CHEMTREC 01 South America SOS-Co Argentina: +(54)-11598	ational 0300 or 612 91 58454! 1-800-6 otec In 39431) r 703.527.3887(int'l) 186 1132) China: 0532 8388 9090 5 (phone) or +32.14583516 (telefax) 681-9531 (24 hours) side Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
Responsible Department E-mail address Website	:	Product Safety and Toxicology Group SDS@CPChem.com www.CPChem.com
CTION 2: Hazards identific	ation	
•	ssified	e or mixture in accordance with the hazard communication standard 29 CFR contain all the information as required by the standard.
Classification	÷	Flammable liquids, Category 2 Skin irritation, Category 2 Eye irritation, Category 2B Germ cell mutagenicity, Category 1B Carcinogenicity, Category 1B Reproductive toxicity, Category 2
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	Specific target organ toxicity - single exposure, Category 3, Central nervous system Aspiration hazard, Category 1
Labeling	
Symbol(s)	
Signal Word	: Danger
Hazard Statements	 H225: Highly flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315 + H320: Causes skin and eye irritation. H336: May cause drowsiness or dizziness. H340: May cause genetic defects. H350: May cause cancer. H361: Suspected of damaging fertility or the unborn child.
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/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or

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	Disposal:	vell-ventilated place. Keep cool. / container to an approved waste			
a					
Carcinogenicity:					
IARC	Group 1: Carcinogenic to hum				
	Benzene 71-43-2				
	Group 2B: Possibly carcinoge				
	Ethylbenzene	100-41-4			
	Naphtha (petroleum), heavy straight-run	64741-41-9			
	Naphthalene	91-20-3			
	Naphtha (petroleum), light catalytic reformed	64741-63-5			
	Naphtha (petroleum), light alkylate	64741-66-8			
	Naphtha, Petroleum, Heavy Catalytic Cracked	64741-54-4			
	Group 1: Carcinogenic to hur				
	Benzene	71-43-2			
	1,3-Butadiene	106-99-0			
	Group 2B: Possibly carcinoge				
	Hydrocarbons, C3-11,	68476-46-0			
	catalytic cracker distillates Naphtha (petroleum), light alkylate	64741-66-8			
	Naphtha (petroleum), light catalytic reformed	64741-63-5			
	Ethylbenzene	100-41-4			
	Naphthalene	91-20-3			
	Isoprene	78-79-5			
NTP	Known to be human carcinoge				
	Benzene	71-43-2			
	Reasonably anticipated to be	-			
	Naphthalene	91-20-3			
	Known to be human carcinoge				
	Benzene	71-43-2			
	1,3-Butadiene	106-99-0			
	Reasonably anticipated to be	-			
	Naphthalene	91-20-3			
ACGIH	Isoprene	78-79-5			
ACGIA	Confirmed human carcinogen				
	Benzene	71-43-2			
	Confirmed animal carcinogen	with unknown relevance to humans			
	Ethanol	64-17-5			
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SECTION 3: Composition/information on ingredients							
Synonyms	:	None established					
Molecular formula	:	Mixture					
Component		CAS-No.	Weight				

Component	CAS-No.	Weight %
Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	90 - 100
Naphtha (petroleum), light alkylate	64741-66-8	30 - 50
Naphtha (petroleum), light catalytic reformed	64741-63-5	30 - 50
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber	68307-98-2	20 - 30
Benzene, dimethyl-	1330-20-7	0 - 20
Toluene	108-88-3	0 - 20
Benzene	71-43-2	0 - 1.1
Ethylbenzene	100-41-4	0 - 5
n-hexane	110-54-3	0 - 5
Naphthalene	91-20-3	0 - 5
Cyclohexane	110-82-7	0 - 5
1,2,4-Trimethylbenzene	95-63-6	0 - 5
1,3-Butadiene	106-99-0	0 - 1
Isoprene	78-79-5	0 - 1

May contain trace hydrogen sulfide below 1.0 wt%.

SECTION 4: First aid measures

General advice	:	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.
If inhaled	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	:	If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point	:	-37°C (-35°F) estimated
Autoignition temperature	:	No data available
Suitable extinguishing	:	Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.
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media		
Unsuitable extinguishing media	:	High volume water jet.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Fire and explosion protection	:	Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Hazardous decomposition		Carlton Dissida Carlton suides
products	·	Carbon Dioxide. Carbon oxides.
products	me	
	me	
products		
products CTION 6: Accidental release		asures Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low
products CTION 6: Accidental release Personal precautions	: me :	asures Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers
products CTION 6: Accidental release Personal precautions Environmental precautions	:	Asures Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to
products CTION 6: Accidental release Personal precautions Environmental precautions Methods for cleaning up	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to
products CTION 6: Accidental release Personal precautions Environmental precautions Methods for cleaning up CTION 7: Handling and stora	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

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Advice on protection against fire and explosion	:	Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Storage		
Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Advice on common storage	:	No materials to be especially mentioned.
Use	:	Engine Testing

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Components	Basis	Value	Control parameters	Note
Hydrocarbons, C3-11, catalytic cracker distillates	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
Naphtha (petroleum), light alkylate	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
Naphtha (petroleum), light catalytic reformed	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
Benzene, dimethyl-	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
	ACGIH	TWA	100 ppm,	CNS impair, URT irr, eye irr, BEI, A4,
	ACGIH	STEL	150 ppm,	CNS impair, URT irr, eye irr, BEI, A4,
Toluene	ACGIH	TWA	20 ppm,	visual impair, female repro, pregnancy loss, BEI, A4,
	OSHA Z-2	TWA	200 ppm,	
	OSHA Z-2	CEIL	300 ppm,	
	OSHA Z-2	Peak	500 ppm,	
	OSHA Z-1-A	TWA	100 ppm, 375 mg/m3	
	OSHA Z-1-A	STEL	150 ppm, 560 mg/m3	
1,2,4-Trimethylbenzene	ACGIH	TWA	25 ppm,	CNS impair, hematologic eff, asthma,
	OSHA Z-1-A	TWA	25 ppm, 125 mg/m3	
Ethylbenzene	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
*	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
	OSHA Z-1-A	STEL	125 ppm, 545 mg/m3	
	ACGIH	TWA	20 ppm,	cochlear imp, kidney dam (nephropathy), URT irr, BEI, A3,
n-hexane	ACGIH	TWA	50 ppm,	CNS impair, eye irr, peripheral neuropathy BEI, Skin,
	OSHA Z-1	TWA	500 ppm, 1,800 mg/m3	(b),
	OSHA Z-1-A	TWA	50 ppm, 180 mg/m3	
Cyclohexane	ACGIH	TWA	100 ppm,	CNS impair,
	OSHA Z-1	TWA	300 ppm, 1,050 mg/m3	(b),
	OSHA Z-1-A	TWA	300 ppm, 1,050 mg/m3	
Naphthalene	ACGIH	TWA	10 ppm,	hemolytic anemia, UR irr, cataract, A3, Skin,
	ACGIH	STEL	15 ppm,	hematologic eff, URT irr, eye irr, eye dam, () A4, Skin,
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		OSHA Z-1	TWA	10 ppm, 50 mg/m3	(b),
		OSHA Z-1-A	TWA	10 ppm, 50 mg/m3	
		OSHA Z-1-A	STEL	15 ppm, 75 mg/m3	
Benzene	ACGIH	TWA	0.5 ppm,	leukemia, BEI, A1, Ski	
		ACGIH	STEL	2.5 ppm,	leukemia, BEI, A1, Ski
		OSHA Z-1-A	TWA	1 ppm,	
		OSHA Z-1-A	CEIL	5 ppm,	
		OSHA Z-2	Peak	50 ppm,	(a),
		OSHA 29 CFR 1910.1028(c)	TWA	1 ppm,	
		OSHA 29 CFR 1910.1028(c)	STEL	5 ppm,	
		OSHA CARC	PEL	1 ppm,	
		OSHA CARC	STEL	5 ppm,	
Isoprene		US WEEL	TWA	2 ppm,	
1,3-Butadiene	9	ACGIH	TWA	2 ppm,	cancer, A2,
		OSHA Z-1	TWA	1 ppm,	
		OSHA Z-1	STEL	5 ppm,	
		OSHA CARC	PEL	1 ppm,	
		OSHA 29 CFR 1910.1051(c)	TWA	1 ppm,	
		OSHA CARC	STEL	5 ppm,	
		OSHA 29 CFR 1910.1051(c)	STEL	5 ppm,	
A1 A2 A3 A4 asthma BEI cancer cataract CNS impair cochlear imp eye dam eye irr female repro	This standard applies t 1910.1028. The value in mg/m3 is Confirmed human carc Suspected human carc Not classifiable as a hu Asthma Substances for which t Cancer Cataract Central Nervous Syster Cochlear impair Eye damage Eye irritation Female reproductive Hematologic effects	approximate. inogen nogen with unknown relev man carcinogen here is a Biological Expos	xempt from the 1 pp rance to humans	m 8-hour TWA and 5 ppm STEL o	f the benzene standard at
anemia kidney dam (nephropathy)	Kidney damage (nephr	opathy)			
leukemia	Leukemia				

leukemia Leukemia peripheral Peripheral neuropathy neuropathy

pregnancy loss Skin Danger of cutaneous absorption

URT irr Upper Respiratory Tract irritation visual impair Visual impairment

Immediately Dangerous to Life or Health Concentrations (IDLH)

Substance name	CAS-No.	Control parameters	Update
Benzene, dimethyl-	1330-20-7	Immediately Dangerous to Life or Health Concentration Value 900 parts per million	1995-03-01
Toluene	108-88-3	Immediately Dangerous to Life or Health Concentration Value 500 parts per million	1995-03-01
Ethylbenzene	100-41-4	Immediately Dangerous to Life or Health Concentration Value 800 parts per million	1995-03-01
n-hexane	110-54-3	Immediately Dangerous to Life or Health Concentration Value 1100 parts per million	1995-03-01
Cyclohexane	110-82-7	Immediately Dangerous to Life or Health Concentration Value 1300 parts per million	1995-03-01
Naphthalene	91-20-3	Immediately Dangerous to Life or Health Concentration Value 250 parts per million	1995-03-01

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Benzene	71-43-2	Immediately Dangerous to Life or Health Concentration Value 500 parts per million	1995-03-01
1,3-Butadiene	106-99-0	Immediately Dangerous to Life or Health Concentration Value 2000 parts per million	2017-02-03
n-Heptane	142-82-5	Immediately Dangerous to Life or Health Concentration Value 750 parts per million	1995-03-01
n-Butane	106-97-8	Immediately Dangerous to Life or Health Concentration Value 1600 parts per million	2017-02-03
Toluene	108-88-3	Immediately Dangerous to Life or Health Concentration Value 500 parts per million	1995-03-01
Naphthalene	91-20-3	Immediately Dangerous to Life or Health Concentration Value 250 parts per million	1995-03-01
Ethanol	64-17-5	Immediately Dangerous to Life or Health Concentration Value 3300 parts per million	1995-03-01
m-xylene	108-38-3	Immediately Dangerous to Life or Health Concentration Value 900 parts per million	1995-03-01
Benzene	71-43-2	Immediately Dangerous to Life or Health Concentration Value 500 parts per million	1995-03-01
p-xylene	106-42-3	Immediately Dangerous to Life or Health Concentration Value 900 parts per million	1995-03-01
n-hexane	110-54-3	Immediately Dangerous to Life or Health Concentration Value 1100 parts per million	1995-03-01
o-xylene	95-47-6	Immediately Dangerous to Life or Health Concentration Value 900 parts per million	1995-03-01
Ethylbenzene	100-41-4	Immediately Dangerous to Life or Health Concentration Value 800 parts per million	1995-03-01
n-Pentane	109-66-0	Immediately Dangerous to Life or Health Concentration Value 1500 parts per million	1995-03-01
Methylcyclohexane	108-87-2	Immediately Dangerous to Life or Health Concentration Value 1200 parts per million	1995-03-01
n-Octane	111-65-9	Immediately Dangerous to Life or Health Concentration Value 1000 parts per million	1995-03-01
Hydrogen Sulfide	7783-06-4	Immediately Dangerous to Life or Health Concentration Value 100 parts per million	1995-03-01

Biological exposure indices

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Substance name	CAS-No.	Control parameters	Sampling time	Update
Benzene, dimethyl-	1330-20-7	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2013-03-01
Toluene	108-88-3	Toluene: 0.02 mg/l (In blood)	Prior to last shift of workweek	2010-03-01
		Toluene: 0.03 mg/l (Urine)	End of shift (As soon as possible after exposure ceases)	2010-03-01
		o-Cresol: 0.3 mg/g Creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2010-03-01

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Benzene	71-43-2	S-Phenylmercapturic acid: 25 µg/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2010-03-01
		t,t-Muconic acid: 500 μg/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2010-03-01
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid: 0.15 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2016-03-01
n-hexane	110-54-3	2,5-Hexanedione: 0.4 mg/l (Urine)	End of shift at end of workweek	2007-01-01
1,3-Butadiene	106-99-0	1,2 Dihydroxy-4-(N-acetylcysteinyl)- butane: 2.5 mg/l (Urine)	End of shift (As soon as possible after exposure ceases)	2010-03-01
		Mixture of N-1 and N- 2(hydroxybutenyl)valine: 2.5 picomoles per gram Hemoglobin (Hemoglobin (Hb) adducts in blood)	Not critical	2010-03-01

Engineering measures

Adequate ventilation to control airborned concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection	:	Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as:. Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.
Hand protection	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection	:	Eye wash bottle with pure water. Tightly fitting safety goggles.
Skin and body protection	:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.
Hygiene measures	:	When using do not eat or drink. When using do not smoke.
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Wash hands before breaks and at the end of workday.

	ical and chemical properties
Appearance	
Form Physical state Color Odor	: Liquid : Liquid : Clear to amber : Mild
Safety data	
Flash point	: -37°C (-35°F) estimated
Lower explosion limit	: 1.5 %(V)
Upper explosion limit	: 7.6 %(V)
Oxidizing properties	: No
Autoignition temperature	: No data available
Molecular formula	: Mixture
Molecular weight	: Not applicable
рН	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: 51-209°C (124-408°F)
Vapor pressure	: 6.90 PSI at 38°C (100°F)
Relative density	: 0.75 at 16 °C (61 °F)
Water solubility	: Negligible
Partition coefficient: n- octanol/water	: No data available
Viscosity, kinematic	: No data available
Relative vapor density	: 3 (Air = 1.0)
Evaporation rate	: No data available
Percent volatile	: > 99 %

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TION 10: Stability and reactive	- 14
	/ity
Reactivity	: Stable under recommended storage conditions.
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Chemical stability	: This material is considered stable under normal ambient and
······	anticipated storage and handling conditions of temperature
	and pressure.
Possibility of hazardous read	ctions
Hazardous reactions	: Hazardous reactions: Vapors may form explosive mixture with
	air.
Conditions to avoid	: Heat, flames and sparks.
Materials to avoid	: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition	: Carbon Dioxide
products .	Carbon oxides
Other data	: No decomposition if stored and applied as directed.
TION 11: Toxicological inform	nation
TION 11: Toxicological inform	nation
	nation
Acute oral toxicity	
Acute oral toxicity Naphtha (petroleum), light	: LD50: > 5,000 mg/kg
Acute oral toxicity	: LD50: > 5,000 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light	: LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate	: LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light	: LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light	: LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed	: LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl-	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl-	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl-	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female LD50: 3,500 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene Ethylbenzene	 LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female LD50: 3,500 mg/kg Species: Rat
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female LD50: 3,500 mg/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene Ethylbenzene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female LD50: 3,500 mg/kg Species: Rat LD50: 3,500 mg/kg Species: Rat LD50: 1,500 mg/kg Species: Rat LD50: 16 g/kg
Acute oral toxicity Naphtha (petroleum), light alkylate Naphtha (petroleum), light catalytic reformed Benzene, dimethyl- Toluene Benzene Ethylbenzene	 : LD50: > 5,000 mg/kg Species: Rat LD50: > 5,000 mg/kg Species: Rat Sex: male and female LD50: 3,523 - 8,600 mg/kg Species: Rat LD50: 6,500 mg/kg Species: Rat Sex: Not Specified LD50: > 2,000 mg/kg Species: Rat Sex: female LD50: 3,500 mg/kg Species: Rat LD50: 3,500 mg/kg Species: Rat LD50: 16 g/kg Species: Rat

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	Method: Converted acute toxicity point estimate
Cyclohexane	LD50: >5,000 mg/kg Species: Rat Sex: male and female Method: OECD Test Guideline 401
1,2,4-Trimethylbenzene	LD50 Oral: 6,000 mg/kg Species: Rat Sex: male
1,3-Butadiene	LD50: 5,480 mg/kg Species: Rat
Isoprene	LD50: 2,043 - 2,210 mg/kg Species: Rat
Acute inhalation toxicity	
Hydrocarbons, C3-11, catalytic cracker distillates	: LC50: > 20 mg/l Species: Rat Test atmosphere: vapor Method: Estimated based on individual component values.
Naphtha (petroleum), light catalytic reformed	LC50: 5.6 mg/m3Exposure time: 4 h Species: Rat Test atmosphere: dust/mist
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-	LC50: 29 mg/l Exposure time: 4 h Species: Rat Test atmosphere: gas
Toluene	LC50: 25.7 - 30 mg/l Exposure time: 4 h Species: Rat Test atmosphere: vapor
Benzene	LC50: 44.5 mg/l Exposure time: 4 h Species: Rat Sex: Not Specified Test atmosphere: vapor
Ethylbenzene	LC50: 17.4 mg/l Exposure time: 4 h Species: Rat Test atmosphere: vapor
n-hexane	LC50: 73860 ppm Exposure time: 4 h Species: Rat Sex: male Test atmosphere: vapor Method: OECD Test Guideline 403
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	Information given is based on data obtained from similar substances.
Cyclohexane	LC50: >32,880 mg/m3Exposure time: 4 h Species: Rat Sex: male and female Test atmosphere: vapor Method: OECD Test Guideline 403
1,2,4-Trimethylbenzene	LC50: > 9.833 mg/l Exposure time: 12 h Species: Rat Test atmosphere: vapor Test substance: yes
1,3-Butadiene	LC50: 285 mg/l Exposure time: 4 h Species: Rat Test atmosphere: vapor
Isoprene	LC50: 180 mg/l Exposure time: 4 h Species: Rat
Acute dermal toxicity	
Benzene, dimethyl-	 LD50: > 2,000 mg/kg Species: Rabbit Information given is based on data obtained from similar substances.
Toluene	LD50: 12,400 mg/kg Species: Rabbit Sex: Not Specified
Benzene	LD50: > 8,260 mg/kg Species: Rabbit
Ethylbenzene	LD50: 15,415 mg/kg Species: Rabbit
n-hexane	LD50: > 3,350 mg/kg Species: Rabbit Sex: male and female Information given is based on data obtained from similar substances.
1,2,4-Trimethylbenzene	LD50 Dermal: > 3440 milligram per kilogram Species: Rat Sex: male and female Test substance: no Information given is based on data obtained from similar substances.
1,3-Butadiene	Negligible or unlikely exposure pathways
Isoprene	LD50: >1 ML/KG Species: Rat
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California P-III Certification F Skin irritation	 irritation largely based on animal evidence.
California P-III Certification F Eye irritation	uel : Mild eye irritation largely based on animal evidence.
California P-III Certification F Sensitization	 uel Does not cause skin sensitization. largely based on animal evidence.
Repeated dose toxicity	
Naphtha (petroleum), light alkylate	: Species: Rabbit Application Route: Dermal Dose: 0, 200, 1000, 2000 mg/kg Exposure time: 4 wk Number of exposures: 3 times/wk NOEL: 1,000 mg/kg Lowest observable effect level: 2,000 mg/kg
	Species: Rat Application Route: Inhalation Dose: 0, 668, 2220, 6646 ppm Exposure time: 12 wk Number of exposures: 5 d/wk NOEL: 6,646 ppm
Naphtha (petroleum), light catalytic reformed	Species: Rat Application Route: Inhalation Dose: 0, 2.00, 5.85, 20.3 mg/l Exposure time: 21 day Number of exposures: 6 h/d, 5 d/wk NOEL: 20.3 mg/l
	Species: Rabbit Application Route: Dermal Dose: 0, 200, 1000, 2000 mg/l Exposure time: 28 day Number of exposures: 3 times/wk Lowest observable effect level: 1000 mg/l
Benzene, dimethyl-	Species: Rat Application Route: oral gavage Dose: 0, 62.5, 125, 250, 500, 100 Exposure time: 13 wk Number of exposures: daily, 5 d/wk NOEL: 1,000 mg/kg
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	Species: Rat Application Route: Inhalation Dose: 0, 180, 460, 810 ppm Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: > 810 ppm
	Species: Rat Application Route: Inhalation Dose: 0, 450, 900, 1800 ppm Exposure time: 13 wk Number of exposures: 6 h/d, 6 d/wk Lowest observable effect level: 900 ppm
Toluene	Species: Rat Application Route: Inhalation Dose: 0, 100, 625, 1250, 3000 ppm Exposure time: 15 wk Number of exposures: 6.5 h/d, 5 d/wk NOEL: 625 ppm
	Species: Mouse Application Route: Inhalation Dose: 0, 100, 625, 1250, 3000 ppm Exposure time: 14 wk Number of exposures: 6.5 h/d, 5 d/wk NOEL: 100 ppm
Benzene	Species: Rat, female Sex: female Application Route: oral gavage Dose: 0, 25, 50, 100 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 25 mg/kg Lowest observable effect level: 25 mg/kg
	Species: Rat, male Sex: male Application Route: oral gavage Dose: 0, 50, 100, 200 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 50 mg/kg Lowest observable effect level: 50 mg/kg
	Species: Mouse Application Route: oral gavage Dose: 0, 25, 50,100 mg/kg Exposure time: 103 wk NOEL: < 25 mg/kg
Ethylbenzene	Species: Rat, male Sex: male Application Route: Inhalation Dose: 200, 400, 600, 800 ppm Exposure time: 13 weeks Number of exposures: 6 hours/day, 6 days/week NOEL: 200 ppm Test substance: yes
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	Target Organs: Ototoxicity
n-hexane	Species: Rat, male Sex: male Application Route: Inhalation Dose: 3,000 ppm Exposure time: 16 wks Number of exposures: 12 h/d Lowest observable effect level: 3,000 ppm Target Organs: Peripheral nervous system
	Species: Mouse, female Sex: female Application Route: Inhalation Dose: 500, 1,000, 4,000, 10,000 ppm Exposure time: 13 wks Number of exposures: 6h or 22h (1,000 ppm)/ 5d/wk Lowest observable effect level: 500 ppm Target Organs: Nose
	Species: Mouse, male Sex: male Application Route: Inhalation Dose: 500, 1,000, 4000, 10,000 ppm Exposure time: 13 wks Number of exposures: 6h or 22h (1,000 ppm)/d, 5d/wk NOEL: 500 ppm Lowest observable effect level: 1,000 ppm Target Organs: Nose
	Species: Rat, male Sex: male Application Route: oral gavage Dose: 568, 1,135, 3,973 mg/kg bw/day Exposure time: 90 or 120 days Number of exposures: Daily or 5d/wk (120-d study) NOEL: 568 mg/kg bw/day Lowest observable effect level: 1135 mg/kg bw/day
Cyclohexane	Species: Rat Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: 90 day Number of exposures: 6 h/d, 5 d/wk NOEL: 2000 ppm

Species: Rat. Male and female Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2,000, 7000 ppm Exposure time: 13-14 wk NOEL: 7000 ppmSpecies: Mouse, Male and female Sex: Sex: Sex: Sex: Sex: Sex: Sex: Sex:	Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2,000, 7000 ppmExposure time: 13-14 wk NUMBer of exposures: 6 hr/d, 5 d/wk NOEL: 7000 ppmSpecies: Mouse, Male and female Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppmExposure time: 13-14 wk Number of exposures: 6 hr/d, 5 d/wk NOEL: 2000 ppmIsopreneSpecies: Rat Application Route: Inhalation Dose: 0, 70, 220, 700, 2200, 7000 Exposure time: 13 wk NUMber of exposures: 6 hr/d, 5 d/wk NOEL: 2000 ppmIsopreneSpecies: Rat Application Route: Inhalation Dose: 0, 70, 220, 700, 2200, 7000 Exposure time: 13 wk NUMber of exposures: 6 hr/d, 5 d/wk NOEL: 7000 ppmGenotoxicity in vitroSpecies: Mouse Application Route: Inhalation Dose: 0, 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 hr/d, 5 d/wk Lowest observable effect level: 70 ppmGenotoxicity in vitroResult: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsHydrocarbons, C3-11, catalytic cracker distillatesRemarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylateTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), catalytic cracked distillate and catalytic cracked aphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects. Result: negativeTail gas (petroleum), catalytic racked distillate and catalytic cracked aphtha fractionation absorberResult: magativeTolueneTest Type: Ames test Result: negativeTolueneTest Type: Ames test Result: negative	sion 4.3	Revision Date 2020-0
Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: 13-14 wk NUmber of exposures: 6 hr/d, 5 d/wk NOEL: 2000 ppm Target Organs: BloodIsopreneSpecies: Rat Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk NUmber of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmSpecies: Mouse Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillates: Result: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylate: Test Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), catalytic cracked distillate and catalytic reformed: Test Type: Arnes test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic reacked maphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects. rest Type: Arnes test Result: negativeToilueneTest Type: Arnes test Result: negativeToilueneTest Type: Arnes test Result: negative	Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: 13-14 wk Number of exposures: 6 hr/d, 5 d/wk NOEL: 2000 ppm Target Organs: BloodIsopreneSpecies: Rat Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmSpecies: Mouse Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillatesTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformedTail gas (petroleum), catalytic cracked distillate and catalytic cracker distillateTail gas (petroleum), catalytic cracked distillate and catalytic reformedTail gas (petroleum), catalytic cracked distillate and catalytic reformedTail gas (petroleum), catalytic cracked distillate and catalytic reformedToil gas (petroleum), catalytic cracked distillate and catalytic reformedToil gas (petroleum), catalytic cracked distillate and catalytic reformedTest Type: Ames test Result: negativeToil gas (petroleum), catalytic cracked distillate and catalytic reformedTest Type: Mouse lymphoma assay Result: negativeToil gas (petroleum), catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Test Type: Mouse lymphoma assay Result: negativeToil ueneToilueneToilueneToilueneToilueneToiluene		Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2,000, 7000 ppm Exposure time: 13-14 wk Number of exposures: 6 hr/d, 5 d/wk
Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmSpecies: Mouse Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 70 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillates: Result: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light catalytic reformed: Test Type: Mouse lymphoma assay 	Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk NOEL: 7000 ppmSpecies: Mouse Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 70 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillatesResult: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light catalytic reformedTest Type: Mouse lymphoma assay Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects. Test Type: Ames test Result: negativeTolueneToluene		Sex: Male and female Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: 13-14 wk Number of exposures: 6 hr/d, 5 d/wk NOEL: 2000 ppm
Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 70 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillates: Result: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylateTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformedTest Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects. Test Type: Ames test 	Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 70 ppmGenotoxicity in vitroHydrocarbons, C3-11, catalytic cracker distillates: Result: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light catalytic reformed: Test Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformed: Test Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-: Result: May cause genetic defects. rest Type: Ames test Result: negativeToluene: Test Type: Ames test Result: negative	Isoprene	Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk
catalytic cracker distillatesRemarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylateTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformedTest Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects.TolueneTest Type: Ames test Result: negativeTolueneTest Type: Ames test 	Hydrocarbons, C3-11, catalytic cracker distillates: Result: May cause genetic defects. Remarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylate: Test Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformed: Test Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects.Toluene: Test Type: Ames test Result: negativeToluene: Test Type: Cytogenetic assay Result: negative		Application Route: Inhalation Dose: 0. 70, 220, 700, 2200, 7000 Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk
catalytic cracker distillatesRemarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylateTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformedTest Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects.TolueneTest Type: Ames test Result: negativeTolueneTest Type: Ames test 	catalytic cracker distillatesRemarks: In vitro tests showed mutagenic effectsNaphtha (petroleum), light alkylateTest Type: Mouse lymphoma assay Result: negativeNaphtha (petroleum), light catalytic reformedTest Type: Ames test Result: negativeTail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects.TolueneTest Type: Ames test Result: negativeTolueneTest Type: Ames test Result: negative	Genotoxicity in vitro	
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cracked distillate and catalytic cracked naphtha fractionation absorberTest Type: Ames test Result: negativeBenzene, dimethyl-Test Type: Mouse lymphoma assay Result: negativeTolueneTest Type: Ames test	cracked distillate and catalytic cracked naphtha fractionation absorberTest Type: Ames test Result: negativeBenzene, dimethyl-Test Type: Mouse lymphoma assay Result: negativeTolueneTest Type: Ames test		
Benzene, dimethyl- Test Type: Ames test Result: negative Test Type: Mouse lymphoma assay Result: negative Toluene Test Type: Ames test	Benzene, dimethyl- Test Type: Ames test Result: negative Test Type: Mouse lymphoma assay Result: negative Toluene Test Type: Ames test	cracked distillate and catalytic cracked naphtha	Result: May cause genetic defects.
Toluene Test Type: Ames test	Result: negative Toluene Test Type: Ames test		
		Toluene	

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	Test Type: Sister Chromatid Exchange Assay Result: negative
	Test Type: Mouse lymphoma assay Result: negative
	Test Type: Cytogenetic assay Result: negative
Benzene	Test Type: Ames test Result: negative
	Test Type: Cytogenetic assay Result: positive
	Test Type: Mouse lymphoma assay Result: positive
	Test Type: Sister Chromatid Exchange Assay Result: negative
Ethylbenzene	Test Type: Ames test Result: negative
	Test Type: Unscheduled DNA synthesis assay Result: negative
n-hexane	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
	Test Type: Mouse lymphoma assay Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
	Test Type: Mouse lymphoma assay Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: Positive results were obtained in some in vitro tests.
Naphthalene	Test Type: Ames test Result: negative
	Test Type: Sister Chromatid Exchange Assay Result: negative
	Test Type: Unscheduled DNA synthesis assay Result: negative
Cyclohexane	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: Mutagenicity (Escherichia coli - reverse mutation assay) Result: negative
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Test Type: Mouse lymphoma assay Metabolic activation: with and without metabolic activation Result: negative Test Type: Mouse lymphoma assay Metabolic activation: with and without metabolic activation Method: OECD Guideline 476 Result: negative 1,3-Butadiene Test Type: Ames test Metabolic activation: with and without metabolic activation Result: Positive results were obtained in some in vitro tests. 1,3-Butadiene Test Type: Chromosome aberration test in vitro Test system: Chinese hamster cells Method: OECD Guideline 473 Result: positive 1soprene Test Type: Ames test Result: negative 1soprene Test Type: Sister Chromatid Exchange Assay Result: positive Genotoxicity in vivo Hydrocarbons, C2-11, catalytic cracker distillates Naphtha (petroleum), light alkylate Result: May cause genetic defects. 1sag (petroleum), light catalytic reformed Test Type: Cytogenetic assay Result: negative 1ai gas (petroleum), light catalytic reformed Test Type: Cytogenetic assay Result: negative 1ai gas (petroleum), light catalytic cracked naphtha fractionation absorber Benzene, dimethyl- Test Type: Cytogenetic assay Result: negative Benzene Test Type: Mouse micronucleus assay Result: negative <		
Metabolic activation: with and without metabolic activation Result: negative Test Type: Mouse lymphoma assay Metabolic activation: with and without metabolic activation Metabolic activation: with and without metabolic activation Metabolic activation: with and without metabolic activation Result: negative 1,3-Butadiene Test Type: Arnes test Metabolic activation: with and without metabolic activation Result: Desitive results were obtained in some in vitro tests. Test Type: Chromosome aberration test in vitro Test Type: Chromosome aberration test in vitro Test Type: Sister Chromatid Exchange Assay Result: positive Genotoxicity in vivo Hydrocarbons, C3-11. : Test Type: Cytogenetic assay Result: positive Cell type: Bone marrow Dose: 300, 1000, 3000 mg/kg Result: negative Tail gas (petroleum), light Test Type: Mouse micronucleus assay Result: negative Test Type: Mouse micronucleus assay Result: negative Tail gas (petroleum), light Test Type: Mouse micronucleus assay Result: negative <tr< th=""><th>sion 4.3</th><th>Revision Date 2020-03</th></tr<>	sion 4.3	Revision Date 2020-03
Metabolic activation: with and without metabolic activation Method: CECD Guideline 476 Result: Positive results were obtained in some in vitro Result: Positive results were obtained in some in vitro tests. Test Type: Chromosome aberration test in vitro Test Type: Chromatid Exchange Assay Result: positiveGenotoxicity in vivoTest Type: Sister Chromatid Exchange Assay Result: positiveHydrocarbons, C3-11, catalytic cracker distillates Naphtha (petroleum), light alkylateResult: May cause genetic defects. Test Type: Cytogenetic assay Species: Rat Cell type: Bone marrow Dose: 300, 1000, 3000 mg/kg Result: negativeNaphtha (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Benzene, dimethyl-Result: May cause genetic defects. Test Type: Mouse micronucleus assay Result: negativeTolueneTest Type: Mouse micronucleus assay Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: negativeEthylbenzeneTest Type: Mouse micronucleus assay Result: negativeProceice: Mouse S		Metabolic activation: with and without metabolic activation
Metabolic activation: with and without metabolic activation Result: Positive results were obtained in some in vitro tests.IsopreneTest Type: Chromosome aberration test in vitro Test system: Chinese hamster cells Method: OEOD Guideline 473 Result: positiveIsopreneTest Type: Ames test Result: negative Test Type: Sister Chromatid Exchange Assay Result: negativeGenotoxicity in vivoHydrocarbons, C3-11, catalytic cracker distillates Naphtha (petroleum), light alkylate: Result: May cause genetic defects. Test Type: Cytogenetic assay Species: Rat Cell type: Bone marrow Dose: 300, 1000, 3000 mg/kg Result: negativeNaphtha (petroleum), light catalytic cracked distillates racked distillate and catalytic cracked naphtha fractionation absorberResult: May cause genetic defects. Test Type: Cytogenetic assay Species: Rat Cell type: Bone marrow Dose: 300, 1000, 3000 mg/kg Result: negativeTail gas (petroleum), light catalytic cracked distillate and catalytic cracked naphtha fractionation absorberResult: May cause genetic defects. Cracked sittlete and catalytic integrativeTolueneTest Type: Cytogenetic assay Result: negativeTolueneTest Type: Mouse micronucleus assay Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: negativeEthylbenzeneTest Type: Mouse micronucleus assay Result: negativeIsopreneTest Type: Mouse micronucleus assay Result: negativeIsopreneTest Type: Mouse micronucleus assay Result: negativeTolueneTest Type: Mouse micronucleus assay Result: negativeIsopreneTest Type: Mouse m		Metabolic activation: with and without metabolic activation Method: OECD Guideline 476
Test system: Chinese hamster cells Method: OECD Guideline 473 Result: positiveIsopreneTest Type: Ames test Result: negative 	1,3-Butadiene	Metabolic activation: with and without metabolic activation
Result: negativeGenotoxicity in vivoHydrocarbons, C3-11, catalytic cracker distillatesNaphtha (petroleum), light alkylateResult: May cause genetic defects.Cell type: Bone marrow Dose: 300, 1000, 3000 mg/kg Result: negativeNaphtha (petroleum), light catalytic reformedTail gas (petroleum), catalytic cracked distillate and catalytic cracked distillate and catalytic reacked naphtha fractionation absorberBenzene, dimethyl-TolueneResult: negativeTolueneResult: negativeBenzeneEthylbenzeneTest Type: Mouse micronucleus assay Result: negativeResult: negativeTolueneTest Type: Mouse micronucleus assay Result: negativeResult: negativeTolueneTest Type: Mouse micronucleus assay Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: negativeEthylbenzeneTest Type: Mouse micronucleus assay Species: Mouse Result: negativePhylenzeneTest Type: Dominant lethal assay Species: MouseNaphtha Result: negative		Test system: Chinese hamster cells Method: OECD Guideline 473
Genotoxicity in vivoHydrocarbons, C3-11, catalytic cracker distillates Naphtha (petroleum), light alkylate: Result: May cause genetic defects.Naphtha (petroleum), light 	Isoprene	
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Result: negativeTest Type: Mouse micronucleus assay Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: positiveEthylbenzeneTest Type: Mouse micronucleus assay Species: Mouse Result: negativen-hexaneTest Type: Dominant lethal assay Species: Mouse		
Result: negativeBenzeneTest Type: Mouse micronucleus assay Result: positiveEthylbenzeneTest Type: Mouse micronucleus assay Species: Mouse Result: negativen-hexaneTest Type: Dominant lethal assay Species: Mouse	Toluene	
Ethylbenzene Test Type: Mouse micronucleus assay Species: Mouse Result: negative n-hexane Test Type: Dominant lethal assay Species: Mouse Species: Mouse		
n-hexane Test Type: Dominant lethal assay Species: Mouse	Benzene	
Species: Mouse	Ethylbenzene	Species: Mouse
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	Dose: 100 and 400 ppm Result: negative
	Test Type: Cytogenetic assay Species: Rat Dose: 900, 3000, 9000 ppm
	Result: negative
Naphthalene	Test Type: Mouse micronucleus assay Result: negative
Cyclohexane	Test Type: Cytogenetic assay Species: Rat Cell type: Bone marrow Dose: 96.6, 307.2, 10141.6 ppm
	Result: negative
1,3-Butadiene	Test Type: Mouse micronucleus assay Species: mice Route of Application: inhalation (gas) Exposure time: 6 h per day for 5 days Dose: 50, 200, 500, 1300 ppm Method: OECD Test Guideline 474 Result: positive
	Test Type: Dominant lethal assay Species: mice Method: OECD Test Guideline 478 Result: Positive results were obtained in some in vivo tests.
Isoprene	Result: negative
	Test Type: Micronucleus test Result: positive
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Carcinogenicity	: Method: Expected to be carcinogenic based on individual component data.
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Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
California P-III Certification Developmental Toxicity	n Fuel : No human information is available.
California P-III Certification Aspiration toxicity	
Toxicology Assessment	
California P-III Certification CMR effects	: Carcinogenicity: Possible human carcinogen
	Mutagenicity:

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	In vitro tests showed mutagenic effects, In vivo tests showed mutagenic effects Reproductive toxicity: Suspected of damaging fertility or the unborn child.
California P-III Certification F Further information	Tuel : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.
CTION 12: Ecological information	ion
Toxicity to fish	
Hydrocarbons, C3-11, catalytic cracker distillates	: 1 - 100 mg/l Toxic to fish.
Naphtha (petroleum), light alkylate	LC50: 8.2 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
Naphtha (petroleum), light catalytic reformed	LL50: 8.2 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow) semi-static test
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber	97.1 mg/l Method: Value calculated using ECOSAR. Toxic to fish.
Benzene, dimethyl-	LC50: 8.2 mg/l Exposure time: 96 h Species: Salmo gairdneri (Rainbow trout)
Toluene	LC50: 18 - 36 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
Benzene	LC50: 5.3 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) flow-through test Test substance: yes Method: OECD Test Guideline 203
Ethylbenzene	LC50: 4.3 mg/l Exposure time: 96 h Species: Marone saxatilis (striped bass)
n-hexane	LL50: 12.51 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) Method: QSAR modeled data
Naphthalene	LC50: 3.2 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
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LC50: 4.53 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 203
LC50: 71.5 mg/l Exposure time: 24 h Species: Lagodon rhomboides (Pinfish)
LC50: 7.43 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) semi-static test Method: OECD Test Guideline 203
aquatic invertebrates
: 1 - 100 mg/l Toxic effects on fish and plankton
LC50: 10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
LC50: 53.4 mg/l Species: Daphnia Method: Value calculated using ECOSAR. Toxic effects on fish and plankton
EC50: 3.78 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
EC50: 10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) static test Test substance: yes Method: OECD Test Guideline 202
LC50: 2.6 mg/l Exposure time: 96 h Species: Mysidopsis bahia (mysid shrimp)
EC50: 2.2 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
EL50: 21.85 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: QSAR modeled data
LC50: 2.16 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
EC50: 0.9 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)

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	Method: OECD Test Guideline 202
Isoprene	EC50: 5.77 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Toxicity to algae	
Hydrocarbons, C3-11, catalytic cracker distillates	: 1 - 100 mg/l Toxic to algae.
Naphtha (petroleum), light alkylate	EC50: 45 mg/l Exposure time: 96 h Species: Selenastrum capricornutum (algae)
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber	EC50: 30.7 mg/l Method: Value calculated using ECOSAR. Toxic to algae.
Toluene	EC50: 134 mg/l Exposure time: 72 h Species: Chlamydomonas angulosa (Green algae)
Benzene	ErC50: 100 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Test substance: yes Method: OECD Test Guideline 201
Ethylbenzene	ErC50: 5.0 mg/l Exposure time: 96 h Species: Selenastrum capricornutum (algae)
	ErC50: 7.7 mg/l Exposure time: 72 h Species: Skeletonema costatum (Marine Algae)
n-hexane	EL50: 9.29 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: QSAR modeled data
Naphthalene	EC50: 2.96 mg/l Exposure time: 48 h Species: Selenastrum capricornutum (algae)
Cyclohexane	EbC50: 3.4 mg/l Exposure time: 72 h Species: Selenastrum capricornutum (algae)
	NOEC: 0.925 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (microalgae) Method: OECD Test Guideline 201
Isoprene	EC50: > 35.2 mg/l Exposure time: 96 h Species: Pseudokirchneriella subcapitata (green algae)
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M-Factor cyclohexane	: M-Factor (Acute Aquat. Tox.) 1
Toxicity to fish (Chronic toxi	city)
Hydrocarbons, C3-11, catalytic cracker distillates	: NOEL: 2.6 mg/l Toxic effects on fish and plankton
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber	Chronic Toxicity Value: 9.01 mg/l Toxic effects on fish and plankton
Toxicity to daphnia and othe	r aquatic invertebrates (Chronic toxicity)
Hydrocarbons, C3-11, catalytic cracker distillates	: NOEL: 2.6 mg/l Species: Daphnia sp. (Water flea) Toxic effects on fish and plankton
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber Ethylbenzene	: Chronic Toxicity Value: 4.37 mg/l Species: Daphnia sp. (Water flea) Toxic effects on fish and plankton
	: NOEC: 1 mg/l Exposure time: 7 d Species: Daphnia pulex (Water flea) semi-static test Analytical monitoring: yes
Biodegradability	: Expected to be inherently biodegradable.
Elimination information (persist	ence and degradability)
Bioaccumulation	: This substance is not considered to be very persistent and very bioaccumulating (vPvB).
Mobility	
Naphtha (petroleum), light alkylate	: This product may float or sink in water. After release, disperses into the air.
Naphtha (petroleum), light catalytic reformed	: No data available
Results of PBT assessment Toluene	: Non-classified vPvB substance, Non-classified PBT substance
Benzene	: This substance is not considered to be persistent, bioaccumulating and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).
Ethylbenzene	: Non-classified vPvB substance, Non-classified PBT substance
n-hexane	: Non-classified vPvB substance, Non-classified PBT substance

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Cyclohexane	:	Non-classified PBT substance, Non-classified vPvB substance
Additional ecological information Ecotoxicology Assessment	:	Toxic to aquatic life with long lasting effects.
Short-term (acute) aquatic hazard	:	Toxic to aquatic life.
Long-term (chronic) aquatic hazard	:	Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION) UN1203, GASOLINE, 3, II

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN1203, GASOLINE, 3, II, (-37°C), MARINE POLLUTANT, (HYDROCARBONS, C3-11, CATALYTIC CRACKER DISTILLATES)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN1203, GASOLINE, 3, II

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

UN1203, MOTOR SPIRIT, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS,

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(HYDROCARBONS, C3-11, CATALYTIC CRACKER DISTILLATES)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

UN1203, GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS, (HYDROCARBONS, C3-11, CATALYTIC CRACKER DISTILLATES)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS) UN1203, GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS, (HYDROCARBONS, C3-11, CATALYTIC CRACKER DISTILLATES)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

National legislation

SARA 311/312 Hazards :	Flammable (gases, aerosols, liquids, or solids) Germ cell mutagenicity Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Aspiration hazard Skin corrosion or irritation Serious eye damage or eye irritation Carcinogenicity
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EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO – KNOW

CERCLA Reportable Quantity	: 699 lbs Benzene, dimethyl-
SARA 302 Reportable Quantity	: This material does not contain any components with a SARA 302 RQ.
SARA 302 Threshold Planning Quantity	: This material does not contain any components with a section 302 EHS TPQ.
SARA 304 Reportable Quantity	: This material does not contain any components with a section 304 EHS RQ.

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SARA 313 Components	: The following components are subject to reporting levels established by SARA Title III, Section 313:
	: Benzene, dimethyl 1330-20-7 Toluene - 108-88-3 1,2,4-Trimethylbenzene - 95-63-6 Ethylbenzene - 100-41-4 n-hexane - 110-54-3 Cyclohexane - 110-82-7 Naphthalene - 91-20-3 Benzene - 71-43-2 Isoprene - 78-79-5 1,3-Butadiene - 106-99-0
Clean Air Act	
Potential Class	product neither contains, nor was manufactured with a Class I or II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR ubpt. A, App.A + B).
The following chemical(s) ar	 listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61): Benzene, dimethyl 1330-20-7 Toluene - 108-88-3 Ethylbenzene - 100-41-4 n-hexane - 110-54-3 Naphthalene - 91-20-3 Benzene - 71-43-2
This product does not conta Accidental Release Prevent	in any chemicals listed under the U.S. Clean Air Act Section 112(r) for ion (40 CFR 68.130, Subpart F).
The following chemical(s) ar Final VOC's (40 CFR 60.489	e listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate c
	 Benzene, dimethyl 1330-20-7 Toluene - 108-88-3 Ethylbenzene - 100-41-4 Cyclohexane - 110-82-7 Benzene - 71-43-2
US State Regulations	
Pennsylvania Right To Knov	: Hydrocarbons, C3-11, catalytic cracker distillates - 68476-46-0 Naphtha (petroleum), light alkylate - 64741-66-8
	Naphtha (petroleum), light catalytic reformed - 64741-63-5

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P-III Certification Fuel Revision Date 2020 Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber - 68307-98-2 Benzene, dimethyl 1330-20-7 Toluene - 108-88-3 1,2,4-Trimethylbenzene - 95-63-6 Ethylbenzene - 100-41-4 n-hexane - 110-54-3 Cyclohexane - 110-62-7 Naphthalene - 91-20-3 Benzene - 71-43-2 Isoprene - 78-79-5 1,3-Butadiene - 106-99-0 rop. 65 : vARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food. Benzene 71-43-2 WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food. Benzene 71-43-2 WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Toluene 108-88-3
cracked naphtha fractionation absorber - 68307-98-2 Benzene, dimethyl 1330-20-7 Toluene - 108-88-3 1,2,4-Trimethylbenzene - 95-63-6 Ethylbenzene - 100-41-4 n-hexane - 110-54-3 Cyclohexane - 110-82-7 Naphthalene - 91-20-3 Benzene - 71-43-2 Isoprene - 78-79-5 1,3-Butadiene - 106-99-0 rop. 65 s : WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food. Benzene 71-43-2 WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Toluene 108-88-3
s [listed below], which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food. Benzene 71-43-2 WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Toluene 108-88-3 ACH : Not in compliance with the inventory
WARNING: This product can expose you to chemicals includi [listed below], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Toluene 108-88-3 ACH : Not in compliance with the inventory
[listed below], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Toluene 108-88-3 ACH : Not in compliance with the inventory
ACH : Not in compliance with the inventory
ACH : Not in compliance with the inventory
 CH INV On the inventory, or in compliance with the inventory On or in compliance with the active portion of the TSCA inventory All components of this product are on the Canadian DSL ICS On the inventory, or in compliance with the inventory Not in compliance with the inventory Not in compliance with the inventory A substance(s) in this product was not registered, notified to be registered, or exempted from registratic by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record ha themselves notified the substance. PICCS Not in compliance with the inventory SI Not in compliance with the inventory
Importation or manufacture of this product is still permitted provided the Korean Importer of Record themselves notified the substance. PICCS : Not in compliance with the inventory SC : Not in compliance with the inventory

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SECTION 16: Other information

NFPA Classification	: Health Hazard: 2 Fire Hazard: 3 Reactivity Hazard: 0	2 0
Further information		
Legacy SDS Number	: CPC00034	

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be 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.

ACGIH	American Conference of	LD50	Lethal Dose 50%
	Government Industrial Hygienists		
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effe
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agenc
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupation Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentra
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substar
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recov Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and	TSCA	Toxic Substance Control Act

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	New Chemical Substances		
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		