Alpha Resources Inc. Safety Data Sheet # 25

Gasoline Reference Material

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product information

Product Name	:	Gasoline Reference Material
Material	:	AR3000, AR3001, AR3001G, AR3002, AR3003, AR3004, AR3005, AR3006, AR3007, AR3008, AR3009, AR3012, AR3013, AR3014 AR2060, AR2061, AR2062, AR2063, AR2064, AR2065, AR2066, AR2067, AR2068, AR2068P, AR3110, AR3015 AR3111, AR3112, AR3113, AR3114, AR3115, AR3121, AR3135, DMR2124, DMR2125, DMR2126, DMR2127, DMR2283
Use	:	Reference Fuel

Company : Alpha Resources, Inc
3090 Johnson Rd.
Stevensville, MI 49127

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)
Transport:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

E-mail address	:	sales@alpharesources.com
Website	:	www.alpharesources.com

SECTION 2: Hazards identification

Classification of the substance or mixture
This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Emergency Overview

Danger

Form: Liquid **Physical state**: Liquid **Color**: Yellow, pale **Odor**: Mild

OSHA Hazards : Flammable Liquid, Toxic by inhalation., Harmful by ingestion., Moderate skin irritant, Moderate eye irritant, Carcinogen, Reproductive hazard, Aspiration hazard, Mutagen, Target Organ Effects

Classification

: Flammable liquids , Category 1
Acute toxicity , Category 4 , Inhalation

Skin irritation , Category 2
Eye irritation , Category 2A
Germ cell mutagenicity , Category 1B
Carcinogenicity , Category 1A
Reproductive toxicity , Category 2
Specific target organ systemic toxicity - single exposure , Category 3 , Respiratory system, Central nervous system
Specific target organ systemic toxicity - repeated exposure , Category 1 , Eyes, Blood
Specific target organ systemic toxicity - repeated exposure , Category 2 , Auditory organs, Nervous system
Specific target organ systemic toxicity - repeated exposure , Category 2 , Inhalation , Auditory organs
Aspiration hazard , Category 1

Labeling

Symbol(s) :

Signal Word : Danger

Hazard Statements : H224: Extremely flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory 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.
H372: Causes damage to organs (Eyes, Blood, Auditory organs, Nervous system) through prolonged or repeated exposure.
H373: May cause damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled.

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.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P281 Use personal protective equipment as required.
Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician 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.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: 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 alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:

IARC	Group 1: Carcinogenic to humans	
	Benzene	71-43-2
	Group 2B: Possibly carcinogenic to humans	
	Naphtha, Petroleum, Heavy Catalytic Cracked	64741-54-4
	Naphtha (petroleum), light alkylate	64741-66-8
	Naphtha (petroleum), light catalytic reformed	64741-63-5
	Naphtha (petroleum), heavy straight-run	64741-41-9
	Naphthalene	91-20-3
	Naphtha (petroleum), hydrotreated heavy	64742-48-9
	Ethylbenzene	100-41-4
NTP	Known to be human carcinogen	
	Benzene	71-43-2
	Reasonably anticipated to be a human carcinogen	
	Naphthalene	91-20-3
ACGIH	Confirmed human carcinogen	
	Benzene	71-43-2
	Confirmed animal carcinogen with unknown relevance to humans	

Kerosene C9-C16 8008-20-6

SECTION 3: Composition/information on ingredients

Synonyms : Unleaded Test Gasoline-96 RON

Molecular formula : Mixture

Component	CAS-No.	Weight %
Naphtha, Petroleum, Heavy Catalytic Cracked	64741-54-4	60 - 80
Toluene	108-88-3	30 - 60
Naphtha (petroleum), light alkylate	64741-66-8	30 - 60
3,3-Dimethylpentane	562-49-2	30 - 60
Isopentane	78-78-4	20 - 50
Naphtha (petroleum), light catalytic reformed	64741-63-5	10 - 30
2,2,4-Trimethylpentane (Isooctane)	540-84-1	5 - 30
n-Heptane	142-82-5	5 - 20
Benzene, dimethyl-	1330-20-7	5 - 20
n-Butane	106-97-8	5 - 20
Kerosene C9-C16	8008-20-6	5 - 20
Naphtha (petroleum), heavy straight-run	64741-41-9	5 - 20
Naphthalene	91-20-3	5 - 10
Naphtha (petroleum), hydrotreated heavy	64742-48-9	1 - 10
2-Methylpentane	107-83-5	1 - 5
2-Methylhexane	591-76-4	1 - 5
3-Methylhexane	589-34-4	1 - 5
Benzene	71-43-2	1 - 5
3-Methylpentane	96-14-0	1 - 5
n-hexane	110-54-3	1 - 5
1,2,4-Trimethylbenzene	95-63-6	1 - 5
2-methyl-2-butene	513-35-9	1 - 5
Ethylbenzene	100-41-4	1 - 5
n-Pentane	109-66-0	1 - 5
2,3-Dimethylpentane	565-59-3	1 - 5
2,4-Dimethylpentane	108-08-7	1 - 5
2,3-Dimethylbutane	79-29-8	1 - 5
n-Octane	111-65-9	1 - 5

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 skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact	:	Immediately flush eye(s) with plenty of water. 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) Method: PMCC
Suitable extinguishing media	:	Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.
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.

SECTION 6: Accidental release measures

Personal precautions	:	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.
Environmental precautions	:	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.
Methods for cleaning up	:	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 local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

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.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

US

Ingredients	Basis	Value	Control parameters	Note
Naphtha, Petroleum, Heavy Catalytic Cracked	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
Toluene	ACGIH	TWA	20 ppm,	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	
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),
3,3-Dimethylpentane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
Isopentane	ACGIH	TWA	600 ppm,	(),
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),
2,2,4-Trimethylpentane (Isooctane)	ACGIH	TWA	300 ppm,	
	ACGIH	TWA	300 ppm,	
n-Heptane	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
	OSHA Z-1-A	STEL	500 ppm, 2,000 mg/m3	
	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
Benzene, dimethyl-	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	ACGIH	TWA	100 ppm,	BEI, A4,
	ACGIH	STEL	150 ppm,	BEI, A4,
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
n-Butane	OSHA Z-1-A	TWA	800 ppm, 1,900 mg/m3	

	ACGIH	STEL	1,000 ppm,	*,
Kerosene C9-C16	ACGIH	TWA	200 mg/m3	P, A3, Skin, varies,
	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
Commercial n-Heptane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
Naphtha (petroleum), heavy straight-run	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
Naphthalene	ACGIH	TWA	10 ppm,	(), A4, Skin,
	ACGIH	STEL	15 ppm,	(), A4, Skin,
	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	
Naphtha (petroleum), hydrotreated heavy	OSHA Z-1	TWA	500 ppm, 2,000 mg/m3	(b),
	OSHA Z-1-A	TWA	400 ppm, 1,600 mg/m3	
2-Methylpentane	ACGIH	TWA	500 ppm,	
	ACGIH	STEL	1,000 ppm,	
	OSHA Z-1-A	TWA	500 ppm, 1,800 mg/m3	
	OSHA Z-1-A	STEL	1,000 ppm, 3,600 mg/m3	
m-xylene	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	ACGIH	TWA	100 ppm,	BEI, A4,
	ACGIH	STEL	150 ppm,	BEI, A4,
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
2-Methylhexane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
3-Methylhexane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
p-xylene	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	ACGIH	TWA	100 ppm,	BEI, A4,
	ACGIH	STEL	150 ppm,	BEI, A4,
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
Benzene	ACGIH	TWA	0.5 ppm,	BEI, A1, Skin,
	ACGIH	STEL	2.5 ppm,	BEI, A1, Skin,
	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,	
3-Methylpentane	ACGIH	TWA	500 ppm,	
	ACGIH	STEL	1,000 ppm,	
	OSHA Z-1-A	TWA	500 ppm, 1,800 mg/m3	
	OSHA Z-1-A	STEL	1,000 ppm, 3,600 mg/m3	
n-hexane	ACGIH	TWA	50 ppm,	BEI, Skin,
	OSHA Z-1	TWA	500 ppm, 1,800 mg/m3	(b),
	OSHA Z-1-A	TWA	50 ppm, 180 mg/m3	
Methylcyclopentane	ACGIH	TWA	500 ppm,	
	ACGIH	STEL	1,000 ppm,	
	OSHA Z-1-A	TWA	500 ppm, 1,800 mg/m3	
	OSHA Z-1-A	STEL	1,000 ppm, 3,600 mg/m3	
o-xylene	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	ACGIH	TWA	100 ppm,	BEI, A4,
	ACGIH	STEL	150 ppm,	BEI, A4,
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
1,2,4-Trimethylbenzene	NIOSH REL	TWA	25 ppm, 125 mg/m3	
	ACGIH	TWA	25 ppm,	
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,	
n-Pentane	OSHA Z-1	TWA	1,000 ppm, 2,950 mg/m3	(b),
	OSHA Z-1-A	TWA	600 ppm, 1,800 mg/m3	
	OSHA Z-1-A	STEL	750 ppm, 2,250 mg/m3	
	ACGIH	TWA	600 ppm,	(),
2,3-Dimethylpentane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
2,4-Dimethylpentane	ACGIH	TWA	400 ppm,	
	ACGIH	STEL	500 ppm,	
2,3-Dimethylbutane	ACGIH	TWA	500 ppm,	

	ACGIH	STEL	1,000 ppm,	
	OSHA Z-1-A	TWA	500 ppm, 1,800 mg/m3	
	OSHA Z-1-A	STEL	1,000 ppm, 3,600 mg/m3	
2-Methylheptane	ACGIH	TWA	300 ppm,	
n-Octane	OSHA Z-1	TWA	500 ppm, 2,350 mg/m3	(b),
	OSHA Z-1-A	TWA	300 ppm, 1,450 mg/m3	
	OSHA Z-1-A	STEL	375 ppm, 1,800 mg/m3	
	ACGIH	TWA	300 ppm,	
4-Methylheptane	ACGIH	TWA	300 ppm,	
2,3,4-Trimethylpentane	ACGIH	TWA	300 ppm,	

() Adopted values or notations enclosed are those for which changes are proposed in the NIC
(a) This standard applies to the industry segments exempt from the 1 ppm 8-hour TWA and 5 ppm STEL of the benzene standard at 1910.1028.
(b) The value in mg/m3 is approximate.
* 2013 Adoption
A1 Confirmed human carcinogen
A3 Confirmed animal carcinogen with unknown relevance to humans
A4 Not classifiable as a human carcinogen
BEI Substances for which there is a Biological Exposure Index or Indices (see BEI® section)
P Application restricted to conditions in which there are neglible aerosol exposures
Skin Danger of cutaneous absorption
varies varies

Immediately Dangerous to Life or Health Concentrations (IDLH)

Substance name	CAS-No.	Control parameters	Update
Toluene	108-88-3	Immediately Dangerous to Life or Health Concentration Value 500 parts per million	1995-03-01
n-Heptane	142-82-5	Immediately Dangerous to Life or Health Concentration Value 750 parts per million	1995-03-01
Benzene, dimethyl-	1330-20-7	Immediately Dangerous to Life or Health Concentration Value 900 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
Benzene	71-43-2	Immediately Dangerous to Life or Health Concentration Value 500 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
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
n-Octane	111-65-9	Immediately Dangerous to Life or Health Concentration Value 1000 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
n-Heptane	142-82-5	Immediately Dangerous to Life or Health Concentration Value 750 parts per million	1995-03-01
Benzene, dimethyl-	1330-20-7	Immediately Dangerous to Life or Health Concentration Value 900 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
m-xylene	108-38-3	Immediately Dangerous to Life or Health Concentration Value 900 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

Benzene	71-43-2	Immediately Dangerous to Life or Health Concentration Value 500 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
n-Octane	111-65-9	Immediately Dangerous to Life or Health Concentration Value 1000 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
Cyclohexane	110-82-7	Immediately Dangerous to Life or Health Concentration Value 1300 parts per million	1995-03-01
Propane	74-98-6	Immediately Dangerous to Life or Health Concentration Value 2100 parts per million	1995-03-01

Biological exposure indices

US

Substance name	CAS-No.	Control parameters	Sampling time	Update
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
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
m-xylene	108-38-3	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2013-03-01
p-xylene	106-42-3	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2013-03-01
Benzene	71-43-2	S-Phenylmercapturic acid: 0.025 mg/g Creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2008-01-01
		t,t-Muconic acid: 0.5 mg/g Creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2008-01-01
n-hexane	110-54-3	2,5-Hexanedione: 0.4 mg/l (Urine)	End of shift at end of workweek	2007-01-01
o-xylene	95-47-6	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2013-03-01
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid: 0.7 g/g creatinine (Urine)	End of shift at end of workweek	2013-03-01

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. For prolonged or repeated contact use protective gloves. 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. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Form	:	Liquid
Physical state	:	Liquid
Color	:	Yellow, pale
Odor	:	Mild

Safety data

Flash point	:	-37 °C (-35 °F) Method: PMCC
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available

Molecular formula	:	Mixture
Molecular weight	:	Not applicable
pH	:	Not applicable
pour point	:	No data available
Boiling point/boiling range	:	33.8 - 204 °C (92.8 - 399 °F)
Vapor pressure	:	9.00 PSI at 38 °C (100 °F)
Relative density	:	0.74, 16 °C(61 °F)
Water solubility	:	Negligible
Partition coefficient: n-octanol/water	:	No data available
Viscosity, kinematic	:	No data available
Relative vapor density	:	3.8 (Air = 1.0)
Evaporation rate	:	No data available

SECTION 10: Stability and reactivity

Chemical stability	:	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Conditions to avoid	:	Heat, flames and sparks.
Other data	:	No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

UTG 96 (unleaded test gasoline)

Acute oral toxicity	:	LD50 Oral: 2,186 mg/kg Species: rat Method: Acute toxicity estimate

UTG 96 (unleaded test gasoline)

Acute inhalation toxicity	:	LC50: 10.98 mg/l Exposure time: 4 h Species: rat Test atmosphere: vapor Method: Acute toxicity estimate

UTG 96 (unleaded test gasoline)
Acute dermal toxicity : LD50 Dermal: 3,509 mg/kg
Species: rabbit
Method: Acute toxicity estimate

UTG 96 (unleaded test gasoline)
Skin irritation : May cause skin irritation in susceptible persons.

UTG 96 (unleaded test gasoline)
Eye irritation : May irritate eyes.

UTG 96 (unleaded test gasoline)
Sensitization : No data available.

UTG 96 (unleaded test gasoline)
Repeated dose toxicity : No data available

UTG 96 (unleaded test gasoline)
Carcinogenicity : Method: No information available.

Reproductive toxicity

Toluene	: Species: rat Application Route: Inhalation Dose: 0, 100, 500, 2000 ppm Test period: 95 d NOAEL Parent: 2000 ppm
Naphtha (petroleum), light alkylate	Species: rat Sex: male Application Route: Inhalation Dose: 0, 5.1, 12.5, 24.7 mg/L Number of exposures: 6 h/d, 7 d/wk Test period: 7 wks NOAEL Parent: 24.7 mg/l NOAEL F1: 24.7 mg/l Species: rat Sex: female Application Route: Inhalation Dose: 0, 5.1, 12.5, 24.7 mg/L Number of exposures: 6 h/d, 7 d/wk Test period: 8 wks NOAEL Parent: 24.7 mg/l NOAEL F1: 24.7 mg/l
Isopentane	Species: rat Sex: male and female Application Route: inhalation (vapor) Dose: 0, 500, 2000, 7000 ppm Number of exposures: 6 h/d 5 d/wk Method: OECD Test Guideline 416 NOAEL Parent: 7000 ppm NOAEL F1: 2000 ppm NOAEL F2: 2000 ppm

	Information given is based on data obtained from similar substances. Species: rat Sex: female Application Route: oral gavage Dose: 0, 100, 300, 1000 mg/kg/d Method: OECD Test Guideline 415 NOAEL Parent: >= 1,000 mg/kg NOAEL F1: >= 1,000 mg/kg Species: rat Sex: male Application Route: oral gavage Dose: 0, 100, 300, 1000 mg/kg/d Method: OECD Test Guideline 415 NOAEL Parent: >= 300 mg/kg
2,2,4-Trimethylpentane (Isooctane)	Species: rat Sex: male and female Application Route: Inhalation Dose: 0, 900, 3000, 9000 ppm Number of exposures: 6 h/d 5 d/wk Method: OECD Test Guideline 416 NOAEL Parent: 3000 ppm NOAEL F1: 3000 ppm NOAEL F2: 3000 ppm Information given is based on data obtained from similar substances.
n-Heptane	Species: rat Application Route: Inhalation Dose: 0, 900, 3000, 9000 ppm Number of exposures: 6 hr/d, 5 d/wk Test period: 13 wk Method: OECD Test Guideline 416 NOAEL Parent: 9000 ppm NOAEL F1: 3000 ppm NOAEL F2: 3000 ppm
n-hexane	Species: rat Sex: male Application Route: Inhalation Dose: 5,000 ppm Number of exposures: 16 hr/d, 6 d/wk Test period: 6 wks permanent testicular damage characterized by loss of germ-cell line
2-methyl-2-butene	Species: rat Application Route: Inhalation Dose: 580, 2000, 7000 ppm Number of exposures: 6 h/d, 7 d/wk Test period: 4 wks NOAEL Parent: 580 ppm NOAEL F1: 7000 ppm no abnormalities observed
n-Pentane	Species: rat Sex: male

Application Route: Inhalation
Dose: 0, 5, 10, 20 mg/l
Exposure time: 13 wk
Test period: 6hrs/day, 5 days/wk
NOAEL Parent: 20 mg/l
no abnormalities observed

Species: rat
Sex: female
Application Route: Inhalation
Dose: 0, 5, 10, 20 mg/l
Exposure time: 13 wk
Test period: 6hrs/day, 5days/wk
NOAEL Parent: 20 mg/l
no abnormalities observed

Developmental Toxicity

Toluene	:	Species: rat Application Route: Inhalation Dose: 0, 100, 500, 2000 ppm Test period: 95 d NOAEL Teratogenicity: 400-750 ppm
Isopentane		Species: rat Application Route: oral gavage Dose: 0, 100, 500, 1000 mg/kg/d Exposure time: GD 6-15 Number of exposures: daily Method: OECD Guideline 414 NOAEL Teratogenicity: 1,000 mg/kg NOAEL Maternal: 1,000 mg/kg Information given is based on data obtained from similar substances. Species: rat Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: GD 6-15 Number of exposures: 5 d/wk Method: OECD Guideline 414 NOAEL Teratogenicity: 7000 ppm NOAEL Maternal: 500 ppm Information given is based on data obtained from similar substances. Species: rabbit Application Route: Inhalation Dose: 0, 500, 2000, 7000 ppm Exposure time: GD 6-18 Method: OECD Guideline 414 NOAEL Teratogenicity: 7000 ppm NOAEL Maternal: 7000 ppm Information given is based on data obtained from similar substances.
2,2,4-Trimethylpentane (Isooctane)		Species: rat Application Route: Inhalation Dose: 0, 400, 1200 ppm

	Number of exposures: 6h/d Test period: GD6-15 NOAEL Teratogenicity: 1200 ppm NOAEL Maternal: 1200 ppm Information given is based on data obtained from similar substances. Species: rat Application Route: Inhalation Dose: 0, 900, 3000, 9000 ppm Number of exposures: 6h/d Test period: GD6-15 Method: OECD Guideline 414 NOAEL Teratogenicity: 9000 ppm NOAEL Maternal: 3000 ppm Information given is based on data obtained from similar substances.
n-Heptane	Species: rat Application Route: Inhalation Dose: 0, 900, 3000, 9000 ppm Exposure time: GD6-15 Number of exposures: 6 hrs/d NOAEL Teratogenicity: 9000 ppm NOAEL Maternal: 3000 ppm
Benzene, dimethyl-	Species: rat Application Route: Inhalation Dose: 0, 805, 1610 ppm Number of exposures: 6 h/d Test period: GD 7-16 NOAEL Maternal: 1610 ppm Species: mouse Application Route: oral gavage Dose: 0, 780, 1960, 2619 mg/kg Number of exposures: 3 times/d Test period: GD 6-15 NOAEL Teratogenicity: 780 mg/kg NOAEL Maternal: 780 mg/kg
Kerosene C9-C16	Species: rat Application Route: Inhalation Dose: 0, 106, 364 ppm Exposure time: 6 hrs/d Test period: GD 6-15 NOAEL Teratogenicity: 364 ppm NOAEL Maternal: 364 ppm
Naphthalene	Species: rabbit Application Route: oral gavage Dose: 40, 200, 400 mg/kg Test period: 29 d, GD 6-18 NOAEL Teratogenicity: 400 mg/kg
n-hexane	Species: rat Application Route: Inhalation Dose: 200, 1,000, 5,000 ppm Number of exposures: 20 hr/d, daily Test period: GD 6-20

	NOAEL Teratogenicity: 200 ppm NOAEL Maternal: 200 ppm Species: mouse Application Route: Inhalation Dose: 200, 1,000, 5,000 ppm Number of exposures: 20 hr/d, daily Test period: GD 6-17 NOAEL Maternal: 1,000 ppm
2-methyl-2-butene	Species: rat Application Route: Inhalation Dose: 580, 2000, 7000 ppm Number of exposures: 6 h/d, 7 d/wk Test period: 4 wks NOAEL Teratogenicity: 7000 ppm
n-Pentane	Species: rat Application Route: Inhalation Dose: 0, 1000, 3000, 10000 ppm Number of exposures: 6 h/d Test period: GD 6-15 NOAEL Teratogenicity: 10,000 ppm

UTG 96 (unleaded test gasoline)

Aspiration toxicity : The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

CMR effects

Naphtha, Petroleum, Heavy Catalytic Cracked	: Carcinogenicity: Possible human carcinogen Mutagenicity: In vivo tests showed mutagenic effects
Toluene	Carcinogenicity: Not classifiable as a human carcinogen. Mutagenicity: Animal testing did not show any mutagenic effects. Teratogenicity: Some evidence of adverse effects on development, based on animal experiments. Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
Isopentane	Carcinogenicity: Not available Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., In vivo tests did not show mutagenic effects Teratogenicity: Animal testing did not show any effects on fetal development. Reproductive toxicity: Animal testing did not show any effects on fertility.
Naphtha (petroleum), light catalytic reformed	Carcinogenicity: Possible human carcinogen Mutagenicity: In vivo tests showed mutagenic effects
2,2,4-Trimethylpentane (Isooctane)	Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Teratogenicity: Animal testing did not show any effects on fetal development.

	Reproductive toxicity: Animal testing did not show any effects on fertility.
n-Heptane	Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Teratogenicity: Animal testing did not show any effects on fetal development. Reproductive toxicity: No toxicity to reproduction
Benzene, dimethyl-	Carcinogenicity: Limited evidence of carcinogenicity in animal studies Mutagenicity: Did not show mutagenic effects in animal experiments. Teratogenicity: Damage to fetus not classifiable
Naphtha (petroleum), heavy straight-run	Mutagenicity: In vivo tests showed mutagenic effects
Naphthalene	Carcinogenicity: Limited evidence of carcinogenicity in animal studies
Naphtha (petroleum), hydrotreated heavy	Carcinogenicity: Possible human carcinogen Mutagenicity: In vivo tests showed mutagenic effects
Benzene	Carcinogenicity: Human carcinogen. Mutagenicity: In vivo tests showed mutagenic effects Teratogenicity: Did not show teratogenic effects in animal experiments. Reproductive toxicity: Animal testing did not show any effects on fertility.
n-hexane	Carcinogenicity: Not classifiable as a human carcinogen. Mutagenicity: Did not show mutagenic effects in animal experiments. Teratogenicity: Suspected of damaging the unborn child. Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
2-methyl-2-butene	Mutagenicity: In vitro tests showed mutagenic effects
Ethylbenzene	Mutagenicity: In vivo tests did not show mutagenic effects Teratogenicity: Did not show teratogenic effects in animal experiments. Reproductive toxicity: No toxicity to reproduction

UTG 96 (unleaded test gasoline)

Further information : Solvents may degrease the skin.

SECTION 12: Ecological information

Ecotoxicity effects

Toxicity to fish : Very toxic to fish.
Estimated based on individual component values.

Toxicity to daphnia and other aquatic invertebrates : Very toxic to aquatic organisms.
Estimated based on individual component values.

Toxicity to algae : Very toxic to algae.
Estimated based on individual component values.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

2,2,4-Trimethylpentane (Isooctane)	:	NOEC: 0.17 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
Ethylbenzene	:	NOEC: 1 mg/l Exposure time: 7 d Species: Daphnia pulex (Water flea) semi-static test Analytical monitoring: yes

Elimination information (persistence and degradability)

Bioaccumulation	:	No data available
Biodegradability	:	No data available

Ecotoxicology Assessment

Acute aquatic toxicity

Toluene	:	Toxic to aquatic life.
Naphtha (petroleum), light alkylate	:	Toxic to aquatic life.
3,3-Dimethylpentane	:	Very toxic to aquatic life.
Isopentane	:	Toxic to aquatic life.
2,2,4-Trimethylpentane (Isooctane)	:	Very toxic to aquatic life.
n-Heptane	:	Very toxic to aquatic life.
Naphthalene	:	Very toxic to aquatic life.
2-Methylpentane	:	Toxic to aquatic life.
2-Methylhexane	:	Very toxic to aquatic life.
3-Methylhexane	:	Very toxic to aquatic life.
Benzene	:	Toxic to aquatic life.
3-Methylpentane	:	Toxic to aquatic life.
n-hexane	:	Toxic to aquatic life.
1,2,4-Trimethylbenzene	:	Toxic to aquatic life.
2-methyl-2-butene	:	Toxic to aquatic life.

Ethylbenzene	:	Toxic to aquatic life.
n-Pentane	:	Toxic to aquatic life.
2,3-Dimethylpentane	:	Very toxic to aquatic life.
2,4-Dimethylpentane	:	Very toxic to aquatic life.
2,3-Dimethylbutane	:	Toxic to aquatic life.
n-Octane	:	Very toxic to aquatic life.

Chronic aquatic toxicity

Toluene	:	Harmful to aquatic life with long lasting effects.
Naphtha (petroleum), light alkylate	:	Toxic to aquatic life with long lasting effects.
3,3-Dimethylpentane	:	Very toxic to aquatic life with long lasting effects.
Isopentane	:	Toxic to aquatic life with long lasting effects.
2,2,4-Trimethylpentane (Isooctane)	:	Very toxic to aquatic life with long lasting effects.
n-Heptane	:	Very toxic to aquatic life with long lasting effects.
Naphthalene	:	Very toxic to aquatic life with long lasting effects.
2-Methylpentane	:	Toxic to aquatic life with long lasting effects.
2-Methylhexane	:	Very toxic to aquatic life with long lasting effects.
3-Methylhexane	:	Very toxic to aquatic life with long lasting effects.
Benzene	:	Harmful to aquatic life with long lasting effects.
3-Methylpentane	:	Toxic to aquatic life with long lasting effects.
n-hexane	:	Toxic to aquatic life with long lasting effects.
1,2,4-Trimethylbenzene	:	Toxic to aquatic life with long lasting effects.
2-methyl-2-butene	:	Toxic to aquatic life with long lasting effects.
Ethylbenzene	:	Harmful to aquatic life with long lasting effects.
n-Pentane	:	Toxic to aquatic life with long lasting effects.
2,3-Dimethylpentane	:	Very toxic to aquatic life with long lasting effects.
2,4-Dimethylpentane	:	Very toxic to aquatic life with long lasting effects.
2,3-Dimethylbutane	:	Toxic to aquatic life with long lasting effects.
n-Octane	:	Very toxic to aquatic life with long lasting effects.

Results of PBT assessment

Isopentane	:	Non-classified PBT substance, Non-classified vPvB substance

2,2,4-Trimethylpentane (Isooctane)	:	Non-classified PBT substance, Non-classified vPvB substance
n-Heptane	:	Non-classified PBT substance, Non-classified vPvB substance
Benzene	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
n-hexane	:	Non-classified vPvB substance, Non-classified PBT substance
n-Octane	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very 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, (2,2,4-TRIMETHYLPENTANE

(ISOOCTANE), N-HEPTANE)

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, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), N-HEPTANE)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN1203, GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), N-HEPTANE)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN1203, GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), N-HEPTANE)

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	:	Fire Hazard Acute Health Hazard Chronic Health Hazard
CERCLA Reportable Quantity	:	315 lbs Isopentane
SARA 302 Reportable Quantity	:	Calculated RQ exceeds reasonably attainable upper limit. Hydrogen Sulfide
SARA 302 Threshold Planning Quantity	:	The following components are subject to reporting levels established by SARA Title III, Section 302: Hydrogen Sulfide 7783-06-4 500 lbs
SARA 304 Reportable Quantity	:	Calculated RQ exceeds reasonably attainable upper limit. Hydrogen Sulfide 7783-06-4 100 lbs

SARA 313 Ingredients : The following components are subject to reporting levels established by SARA Title III, Section 313:

: Toluene - 108-88-3
Benzene, dimethyl- - 1330-20-7
Naphthalene - 91-20-3
m-xylene - 108-38-3
p-xylene - 106-42-3
Benzene - 71-43-2
n-hexane - 110-54-3
o-xylene - 95-47-6
1,2,4-Trimethylbenzene - 95-63-6
Ethylbenzene - 100-41-4

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

: Toluene - 108-88-3
2,2,4-Trimethylpentane (Isooctane) - 540-84-1
Benzene, dimethyl- - 1330-20-7
Naphthalene - 91-20-3
m-xylene - 108-38-3
p-xylene - 106-42-3
Benzene - 71-43-2
n-hexane - 110-54-3
o-xylene - 95-47-6
Ethylbenzene - 100-41-4

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

: Isopentane - 78-78-4
n-Butane - 106-97-8
n-Pentane - 109-66-0
trans-2-Pentene - 646-04-8
Hydrogen Sulfide - 7783-06-4
1-Butene, 2-methyl- - 563-46-2
Isobutane - 75-28-5
Propane - 74-98-6

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

: Toluene - 108-88-3
Isopentane - 78-78-4
Benzene, dimethyl- - 1330-20-7
p-xylene - 106-42-3
Benzene - 71-43-2
o-xylene - 95-47-6
Ethylbenzene - 100-41-4
n-Pentane - 109-66-0
Methylcyclohexane - 108-87-2
Cyclohexane - 110-82-7

US State Regulations

Pennsylvania Right To Know

: Naphtha, Petroleum, Heavy Catalytic Cracked - 64741-54-4
Toluene - 108-88-3
Naphtha (petroleum), light alkylate - 64741-66-8
3,3-Dimethylpentane - 562-49-2
Isopentane - 78-78-4
Naphtha (petroleum), light catalytic reformed - 64741-63-5
2,2,4-Trimethylpentane (Isooctane) - 540-84-1
n-Heptane - 142-82-5
Benzene, dimethyl- - 1330-20-7
n-Butane - 106-97-8
Kerosene C9-C16 - 8008-20-6
Naphtha (petroleum), heavy straight-run - 64741-41-9
Naphthalene - 91-20-3
Naphtha (petroleum), hydrotreated heavy - 64742-48-9
2-Methylpentane - 107-83-5
2-Methylhexane - 591-76-4
3-Methylhexane - 589-34-4
Benzene - 71-43-2
3-Methylpentane - 96-14-0
n-hexane - 110-54-3
1,2,4-Trimethylbenzene - 95-63-6
2-methyl-2-butene - 513-35-9
Ethylbenzene - 100-41-4
n-Pentane - 109-66-0
2,3-Dimethylpentane - 565-59-3
2,4-Dimethylpentane - 108-08-7
2,3-Dimethylbutane - 79-29-8
n-Octane - 111-65-9

New Jersey Right To Know

: Naphtha, Petroleum, Heavy Catalytic Cracked - 64741-54-4
Toluene - 108-88-3
Naphtha (petroleum), light alkylate - 64741-66-8
3,3-Dimethylpentane - 562-49-2
Isopentane - 78-78-4
2,2,4-Trimethylpentane (Isooctane) - 540-84-1
n-Heptane - 142-82-5
Benzene, dimethyl- - 1330-20-7
n-Butane - 106-97-8
Kerosene C9-C16 - 8008-20-6
Naphthalene - 91-20-3
2-Methylpentane - 107-83-5
3-Methylhexane - 589-34-4
Benzene - 71-43-2
n-hexane - 110-54-3
1,2,4-Trimethylbenzene - 95-63-6
2-methyl-2-butene - 513-35-9
Ethylbenzene - 100-41-4
n-Pentane - 109-66-0
2,3-Dimethylpentane - 565-59-3
2,4-Dimethylpentane - 108-08-7
2,3-Dimethylbutane - 79-29-8

n-Octane - 111-65-9

California Prop. 65 Ingredients : WARNING! This product contains a chemical known in the State of California to cause cancer.

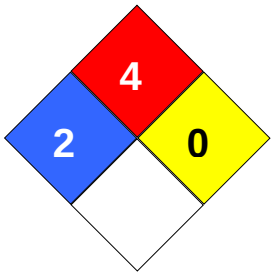
WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Notification status

Europe REACH	:	Not in compliance with the inventory
United States of America TSCA	:	On the inventory, or in compliance with the inventory
Canada NDSL	:	This product contains one or several components listed in the Canadian NDSL.
Australia AICS	:	On the inventory, or in compliance with the inventory
New Zealand NZIoC	:	Not in compliance with the inventory
Japan ENCS	:	On the inventory, or in compliance with the inventory
Korea KECI	:	Not in compliance with the inventory
Philippines PICCS	:	Not in compliance with the inventory
China IECSC	:	Not in compliance with the inventory

SECTION 16: Other information

NFPA Classification : Health Hazard: 2
Fire Hazard: 4
Reactivity Hazard: 0



Further information

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.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%

AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational 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 Concentration
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 Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery 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 New Chemical Substances	TSCA	Toxic Substance Control Act
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%		