

1. Identification

Product identifier	Crude Oil (Light)		
Other means of identification	Not available.		
Recommended use	Fuel		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Company name	Noble Energy, Inc.		
Address	1001 Noble Energy Way Houston, TX 77070 US US		
Telephone	Non-emergency Telephone:	720-587-2085	
E-mail	SDSGLOBAL@nobleenergyinc.com		
Emergency phone number	24 Hour Emergency:	1-760-476-3962	
	Access code	333053	

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1 (Blood, Central nervous system)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

Precautionary statement**Prevention**

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

Response

If swallowed: Immediately call a poison center/doctor/. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Collect spillage.

Storage

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

Disposal

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

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquids

3. Composition/information on ingredients**Mixtures**

Chemical name	CAS number	%
Petroleum Distillate	8002-05-9	> 95
n-Hexane	110-54-3	5 - 10
Toluene	108-88-3	2 - 5
Xylene	1330-20-7	2 - 5
Butane	106-97-8	0 - 3
Benzene	71-43-2	0 - 2
Propane	74-98-6	0 - 2
Ethane	74-84-0	0 - 1
Ethylbenzene	100-41-4	0 - 1

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Crude oil can contain minor amounts of sulfur, nitrogen, and oxygen containing organic compounds as well as trace amounts of heavy metals. Composition can vary depending on the source.

4. First-aid measures**Inhalation**

If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Skin contact

Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Ingestion

Call a physician or poison control center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration.

Most important symptoms/effects, acute and delayed

May cause genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure. Skin and eye irritation. Vapors may cause drowsiness and dizziness. Swallowing of the liquid, or vomiting as a result, may result in aspiration into the lungs.

Indication of immediate medical attention and special treatment needed

Treat symptomatically. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficulty breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂). Water fog.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	Containers may explode when heated. Thermal decomposition or combustion may liberate toxic gases or fumes.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Specific methods	Move container from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Eliminate sources of ignition. Wear appropriate personal protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Eliminate sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste for proper disposal. Large Spills: Use water spray to disperse vapors and dilute spill to a nonflammable mixture. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Use only with adequate ventilation.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed and in a well-ventilated place. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m ³
		100 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m ³
		500 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m ³
		1000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Toluene (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	1 ppm
	TWA	0.1 ppm
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
	TWA	125 ppm 435 mg/m3
n-Hexane (CAS 110-54-3)	TWA	100 ppm 180 mg/m3
	Ceiling	50 ppm 1800 mg/m3
Petroleum Distillate (CAS 8002-05-9)	TWA	350 mg/m3
Propane (CAS 74-98-6)	TWA	1800 mg/m3
	STEL	1000 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
	25 µg/g	S-Phenyl-mercapturic acid		*
Ethylbenzene (CAS 100-41-4)	0.7 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*
	0.4 mg/l	2,5-Hexanedion, without hydrolysis		*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)	Skin designation applies.
------------------------	---------------------------

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Chemical resistant gloves are recommended.
Other	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear golden yellow with yellow paraffin.
Physical state	Liquid.
Form	Liquid.
Color	Yellow.
Odor	Hydrocarbon.
Odor threshold	Not relevant.
pH	Not relevant.
Melting point/freezing point	-63.4 °F (-53 °C)
Initial boiling point and boiling range	244 °F (117.78 °C)
Flash point	54.0 °F (12.2 °C) Pensky-Martens Closed Cup
Evaporation rate	2.4 (n-Butylacetate=1)
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.8
Flammability limit - upper (%)	7
Vapor pressure	11 (atmosphere) @ 100°F (38°C)
Vapor density	3.7 @ 60°F (20°C)
Relative density	0.67 @ 60°F (20°C) (Air=1)
Solubility(ies)	
Solubility (water)	1.8 mg/l Insoluble
Partition coefficient (n-octanol/water)	4.5
Auto-ignition temperature	482 °F (250 °C)
Decomposition temperature	Not relevant.
Viscosity	0.55 mPa·s
Viscosity temperature	77 °F (25 °C)
Other information	API Gravity: 66 @ 60°F.
Bulk density	6 lb/gal

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

Conditions to avoid	Keep away from heat, sparks, and flame.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Swallowing or vomiting of the liquid may result in aspiration into the lungs.
Inhalation	May cause drowsiness or dizziness.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Swallowing or vomiting of the liquid may result in aspiration into the lungs. Skin and eye irritation. Vapors may cause drowsiness and dizziness. Causes damage to organs (Blood, Central Nervous System) through prolonged or repeated exposure.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
Benzene (CAS 71-43-2)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	9980 ppm 9980 ppm, 7 Hours
	Rat	43767 mg/m ³ , 4 Hours 13700 ppm, 4 Hours 10000 ppm, 7 Hours
<i>Oral</i>		
LD50	Mouse	4700 mg/kg
	Rat	3306 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg 17.8 ml/kg
<i>Inhalation</i>		
LC50	Mouse	> 8000 ppm, 20 Minutes 35.5 mg/l
	Rat	4000 ppm 55 mg/l
<i>Oral</i>		
LD50	Rat	3.5 g/kg
n-Hexane (CAS 110-54-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5 ml/kg
<i>Inhalation</i>		
LC50	Mouse	48000 ppm, 4 Hours
	Rat	73860 ppm, 4 Hours > 5000 ppm, 24 Hours > 31.86 mg/l
<i>Oral</i>		
LD50	Rat	28710 mg/kg

Components	Species	Test Results
Propane (CAS 74-98-6)		24 ml/kg
Acute <i>Inhalation</i> LC50	Rat	> 1442 mg/l, 15 Minutes
Toluene (CAS 108-88-3)		
Acute <i>Dermal</i> LD50	Rabbit	> 5000 mg/kg 14.1 ml/kg
<i>Inhalation</i> LC50	Mouse	6405 - 7436 ppm, 6 Hours 5320 ppm, 8 Hours 400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours 12200 ppm, 2 Hours 8000 mg/l, 4 Hours 8000 ppm, 4 Hours 5879 - 6281 ppm, 6 Hours 12.5 - 28.8 mg/l, 4 Hours
<i>Oral</i> LD50	Rat	> 5000 mg/kg 2.6 g/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not classified.	
Skin sensitization	No data available.	
Germ cell mutagenicity	May cause genetic defects.	
Carcinogenicity	May cause cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Benzene (CAS 71-43-2)	1 Carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Petroleum Distillate (CAS 8002-05-9)	3 Not classifiable as to carcinogenicity to humans.	
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
NTP Report on Carcinogens		
Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Benzene (CAS 71-43-2)	Cancer	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.	
Specific target organ toxicity - repeated exposure	Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure.	
Aspiration hazard	May be fatal if swallowed and enters airways.	

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species		Test Results
Benzene (CAS 71-43-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	8.76 - 15.6 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5.3 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1 - 4 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Petroleum Distillate (CAS 8002-05-9)			
Aquatic			
Fish	LC50	Cutthroat trout (Oncorhynchus clarki)	2.1 - 4.3 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5.89 - 7.81 mg/l, 96 hours

Persistence and degradability Not established.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Crude Oil (Light) (CAS Mixture)	4.5
Benzene (CAS 71-43-2)	2.13
Ethylbenzene (CAS 100-41-4)	3.15
Propane (CAS 74-98-6)	2.36
Toluene (CAS 108-88-3)	2.73
n-Hexane (CAS 110-54-3)	3.9

Mobility in soil Not available.

Other adverse effects Not established.

13. Disposal considerations

Disposal instructions Do not discharge into drains, water courses or onto the ground. Discharge, treatment, or disposal may be subject to national, state, or local laws.

Hazardous waste code D001: Waste Flammable material with a flash point <140 °F

US RCRA Hazardous Waste U List: Reference

Benzene (CAS 71-43-2)	U019
Toluene (CAS 108-88-3)	U220

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1267
UN proper shipping name	Petroleum crude oil
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II

Environmental hazards

Marine pollutant Yes
Special precautions for user Not available.
Special provisions 144, 357, IB2, T4, TP1, TP8
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1267
UN proper shipping name Petroleum crude oil
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards Yes
ERG Code 3L
Special precautions for user Not available.

IMDG

UN number UN1267
UN proper shipping name PETROLEUM CRUDE OIL
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards
Marine pollutant Yes
EmS F-E, S-E
Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Benzene (CAS 71-43-2) Cancer
Central nervous system
Blood
Aspiration
Skin
Eye
respiratory tract irritation
Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Benzene (CAS 71-43-2) LISTED
Ethylbenzene (CAS 100-41-4) LISTED
n-Hexane (CAS 110-54-3) LISTED
Propane (CAS 74-98-6) LISTED
Toluene (CAS 108-88-3) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Petroleum Distillate	8002-05-9	> 95
n-Hexane	110-54-3	5 - 10
Toluene	108-88-3	2 - 5
Xylene	1330-20-7	2 - 5
Benzene	71-43-2	0 - 2
Ethylbenzene	100-41-4	0 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- n-Hexane (CAS 110-54-3)
- Petroleum Distillate (CAS 8002-05-9)
- Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

- Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

- Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

- Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

- Toluene (CAS 108-88-3) 594

US state regulations WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- n-Hexane (CAS 110-54-3)
- Petroleum Distillate (CAS 8002-05-9)
- Propane (CAS 74-98-6)
- Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- n-Hexane (CAS 110-54-3)
- Petroleum Distillate (CAS 8002-05-9)
- Propane (CAS 74-98-6)
- Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- n-Hexane (CAS 110-54-3)
- Petroleum Distillate (CAS 8002-05-9)
- Propane (CAS 74-98-6)
- Toluene (CAS 108-88-3)

US. Rhode Island RTK

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- n-Hexane (CAS 110-54-3)
- Propane (CAS 74-98-6)
- Toluene (CAS 108-88-3)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

- Benzene (CAS 71-43-2)

Ethylbenzene (CAS 100-41-4)
Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-July-2014

Revision date --

Version # 01

NFPA ratings



References

ECHA registered substances database
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
Registry of Toxic Effects of Chemical Substances (RTECS)

Disclaimer

The information provided herein is believed to be accurate as of the date of issue, but is offered without guarantee. The information provided may not be complete, as it is not practicable to provide all scientific information in the format of this document. Further, additional information may be necessary under exceptional conditions of use, or because of applicable laws or regulations. Noble Energy, Inc. does not assume any liability arising out of product use even if safety procedures are followed as outlined herein. The user has the responsibility for evaluating the adequacy of the information under the conditions of use and obtaining additional information where uncertainty exists. No express or implied guarantees are made as to the effects of use, the results to be obtained, or the safety and toxicity of the product in any specific application. The user assumes all risks of use of the product. Noble Energy, Inc. expressly disclaims all warranties of every kind including warranties of merchantability and fitness for any particular purpose. Nothing herein is intended to be construed as permission or recommendation for use of the product in any manner which might infringe existing patents.