SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	Aseng Crude Oil
Registration number	-
Synonyms	None.
Issue date	03-September-2014
Version number	01
Revision date	-
Supersedes date	-

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Fuel.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier	Noble Energy Mediterranean, Ltd.
Address	Aseng Terminal, Equatorial Guinea
Telephone Number	1-281-943-1201
e-mail	SDSGLOBAL@nobleenergyinc.com
Emergency telephone number	3E Global Number 760-476-3962 333053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification Carc. Cat. 1;R45, Muta. Cat. 2;R46

Classification according to Regulation (EC) No 1272/2008 as amended

Health Hazards

Germ cell mutagenicity	Category 1B	H340 - May cause genetic defects.
Carcinogenicity	Category 1A	H350 - May cause cancer.
Reproductive toxicity	Category 2	H361d - Suspected of damaging the unborn child.
Specific target organ toxicity - repeated exposure	Category 1	H372 - Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health Hazards	May cause cancer. May cause heritable genetic damage. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Do not breathe dust/fume/gas/mist/vapors/spray. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Pregnant women or women of child-bearing age should not be exposed to this product. May cause heritable genetic damage. May cause long-term adverse effects in the aquatic environment.
Main symptoms	Direct contact with eyes may cause temporary irritation. Prolonged or repeated contact may dry skin and cause irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Benzene, Petroleum distillate, Toluene, Xylene

Hazard pictograms

Signal word Danger

Hazard statements
H340 - May cause genetic defects.
H350 - May cause cancer.
H361d - Suspected of damaging the unborn child.
H372 - Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention
P201 - Obtain special instructions before use.
P260 - Do not breathe mist or vapor.
P263 - Avoid contact during pregnancy/while nursing.

Response P308 + P311 - IF exposed or concerned: Call a POISON CENTER/doctor.

Storage P405 - Store locked up.

Disposal P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Petroleum distillate	>90	8002-05-9 232-298-5	Exempted by Annex V(8)	649-049-00-5	
Classification: **DSD:** Carc. Cat. 2;R45					
CLP: Flam. Liq. 3;H226, Carc. 1B;H350, Aquatic Chronic 2;H411					
n-Paraffins	>75	64771-72-8 265-233-4	-	-	
Classification: **DSD:** -					
CLP: -					
i-Paraffins	>20	8012-95-1 232-384-2	-	-	
Classification: **DSD:** -					
CLP: -					
Toluene	2 - 5	108-88-3 203-625-9	-	601-021-00-3	#
Classification: **DSD:** F;R11, Repr. Cat. 3;R63, Xn;R65-48/20, Xi;R38, R67					
CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Repr. 2;H361d, STOT RE 2;H373					
Xylene	2 - 5	1330-20-7 215-535-7	-	601-022-00-9	#
Classification: **DSD:** R10, Xn;R20/21, Xi;R38					C
CLP: Flam. Liq. 3;H226, Acute Tox. 4;H312, Skin Irrit. 2;H315, Acute Tox. 4;H332					C

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Benzene	0 - 2	71-43-2 200-753-7	-	601-020-00-8	#
Classification:	**DSD:**	F;R11, Carc. Cat. 1;R45, Muta. Cat. 2;R46, T;R48/23/24/25, Xn;R65, Xi;R36/38			E
	CLP:	Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, Eye Irrit. 2;H319, Muta. 1B;H340, Carc. 1A;H350, STOT RE 1;H372, Aquatic Acute 1;H400, Aquatic Chronic 1;H410, Aquatic Chronic 2;H411			E

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
#: This substance has been assigned Community workplace exposure limit(s).
Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
Note E (Table 3.2): Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word "Also".

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 heay metals. Composition can vary depending on the source.

SECTION 4: First aid measures

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

4.1. Description of first aid measures

Inhalation Ensure own safety. Remove victim to fresh air. Give oxygen, artificial respiration, or CPR if needed. Seek medical attention immediately.

Skin contact Flush skin with water, removing contaminated clothing. Get medical attention if irritation persists or large area of contact. Decontaminate clothing before re-use.

Eye contact Immediately flush with large amounts of luke warm water for 15 minutes, lifting upper and lower lids at intervals. Seek medical attention if irritation persists.

Ingestion Give 2-3 glasses of milk or water to drink. Do not induce vomiting. Keep warm and at rest. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed May cause cancer. 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.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Foam. Dry chemical powder. Carbon dioxide (CO2). Water fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture Thermal decomposition or combustion may liberate toxic gases or fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures No specific precautions.

Specific methods Move container from fire area if it can be done without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wear appropriate personal protective equipment (See Section 8).
For emergency responders	Keep unnecessary personnel away.
6.2. Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
6.3. Methods and material for containment and cleaning up	Sweep up and place in a clearly labeled container for chemical waste. Caution: Contaminated surfaces may be slippery. Wash contact areas with soap and water. Large Spills: Sweep or scoop up and remove. Prevent runoff from entering drains, sewers, or streams.
6.4. Reference to other sections	For personal protection, see Section 8 of the SDS. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Keep away from heat, spark, open flames and other sources of ignition. To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Industrial hygiene monitoring such as that detailed in NIOSH Methodology 1501 is required when handling or working near this product. Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Use only with adequate ventilation. Examples of when concentrations may exceed exposure limits include, but are not limited to, handling product in reduced ventilation environments like indoor settings, when face is in close proximity to source (<2 feet) or when quantities such as numerous gallons or more of product are in use in well ventilated environments. Higher benzene content dictates a proportionally lower handling volume. These examples are for general guidance only to brief task-based exposures in relation to the benzene STEL and are not a replacement for proper risk assessment that includes industrial hygiene monitoring.
7.2. Conditions for safe storage, including any incompatibilities	Protect from heat and direct sunlight. Store in a cool, dry, well-ventilated place. Store away from incompatible materials.
7.3. Specific end use(s)	Fuel.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Spain. Carcinogens and Mutagens with Limit Values (Table 2)

Components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m3 1 ppm

Spain. Occupational Exposure Limits

Components	Type	Value	Form
i-Paraffins (CAS 8012-95-1)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Toluene (CAS 108-88-3)	STEL	384 mg/m3 100 ppm	
	TWA	192 mg/m3 50 ppm	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm	
	TWA	221 mg/m3 50 ppm	

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Toluene (CAS 108-88-3)	STEL	384 mg/m3 100 ppm
	TWA	192 mg/m3 50 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
	TWA	221 mg/m3
		50 ppm

EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A

Components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m3
		1 ppm

Biological limit values

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	5 µg/l	Benceno total	Blood	*
	0,045 mg/g	Ácido S-Fenilmercapt úrico	Creatinine in urine	*
	2 mg/l	Ácido t,t-Mucónico	Urine	*
Toluene (CAS 108-88-3)	1,6 g/g	Ácido hipúrico	Creatinine in urine	*
	0,5 mg/l	o-Cresol	Urine	*
	0,05 mg/l	Tolueno	Blood	*
Xylene (CAS 1330-20-7)	1,5 g/g	Ácidos metilhipúricos	Creatinine in urine	*

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

Recommended monitoring procedures Industrial hygiene monitoring such as that detailed in NIOSH Methodology 1501 is required when handling or working near this product.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

Spain OELs /Carc. & Muta.: Skin designation

Benzene (CAS 71-43-2) Can be absorbed through the skin.

Spain OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.
Xylene (CAS 1330-20-7) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls Adequate ventilation should be provided so that exposure limits are not exceeded. Mechanical ventilation required in confined spaces. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Chemical resistant gloves are recommended. Viton for full hand immersion, nitrile adequate for incidental contact.

- Other Wear fire retardant garments that meet NFPA 2112. Wear covered footware such as steel-toes boots.

Respiratory protection Use a NIOSH-approved positive pressure self-contained breathing apparatus, supplied air breathing apparatus or cartridge air purifying respirator approved for organic vapors when concentrations may exceed exposure limits. A cartridge respirator is not suitable for oxygen deficiency or IDLH situations. Use approved gas detectors; however, not that combustible gas detection will likely not offer warning against overexposure to this material.

Thermal hazards Not applicable.

Hygiene measures Industrial hygiene monitoring such as that detailed in NIOSH Methodology 1501 is required when handling or working near this product.
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.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Oily Viscous liquid.
Physical state	Liquid.
Form	Liquid. May be solid at room temperature.
Color	Black.
Odor	Hydrocarbon.
Odor threshold	Not relevant.
pH	Not relevant.
Melting point/freezing point	96,8 °F (36 °C)
Initial boiling point and boiling range	411,8 °F (211 °C) at 1 atmosphere
Flash point	212,0 °F (100,0 °C) Pensky-Martens Closed Cup
Evaporation rate	Not relevant.
Flammability (solid, gas)	Will burn if involved in a fire.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0,6 %
Flammability limit - upper (%)	6,5 %
Explosive limit - lower (%)	Not applicable.
Explosive limit - lower (%) temperature	Not applicable.
Explosive limit - upper (%)	Not applicable.
Explosive limit - upper (%) temperature	Not applicable.
Vapor pressure	5 kPa at 20°C
Vapor density	3,7 at 20°C
Relative density	0,873
Relative density temperature	86 °F (30 °C)
Solubility(ies)	Insoluble < 1 mg/l at 20°C
Partition coefficient (n-octanol/water)	Not relevant.
Auto-ignition temperature	482 °F (250 °C) estimated
Decomposition temperature	Not relevant.
Viscosity	6,6 cSt at 50°C 8,5 cSt at 40°C 16 cSt at 25°C
Explosive properties	Not explosive.
Oxidizing properties	No oxidizing properties.
9.2. Other information	
Pour point	96,8 °F (36 °C)

API Gravity 30.5

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerization does not occur.
10.4. Conditions to avoid	Elevated temperatures.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Prolonged exposure may cause chronic effects.

Skin contact Prolonged or repeated contact may dry skin and cause irritation.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion No harmful effects expected in amounts likely to be ingested by accident.

Symptoms Direct contact with eyes may cause temporary irritation. Prolonged or repeated contact may dry skin and cause irritation.

11.1. Information on toxicological effects

Acute toxicity Vapor may cause irritation of the eyes, nose and throat, drowsiness and dizziness. Contact with skin may cause irritation and possible contact dermatitis. Absorbed through intact skin. Contact of liquid with eyes may cause severe irritation and possible damage.

Components	Species	Test Results
Benzene (CAS 71-43-2)		
Acute		
Dermal		
LD50	Guinea pig; Rabbit	> 9,4 ml/kg, 24 Hours
Inhalation		
LC50	Mouse	9980 ppm
		9980 ppm, 7 Hours
	Rat	43767 mg/m3, 4 Hours
		13700 ppm, 4 Hours
		10000 mg/l, 7 Hours
		10000 ppm, 7 Hours
Oral		
LD50	Rat	5970 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
		14,1 ml/kg
Inhalation		
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 ppm, 4 Hours
		5879 - 6281 ppm, 6 Hours
		25,7 mg/l, 4 Hours
Oral		
LD50	Rat	5580 mg/kg
		2,6 g/kg
Other		
LD50	Mouse	59 mg/kg
		1,15 g/kg
	Rat	1332 mg/kg
		1,64 g/kg

Components	Species	Test Results
Xylene (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	12126 mg/kg, 24 Hours
		> 5000 ml/kg, 4 Hours
		> 43 g/kg
Inhalation		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
		5922 ppm, 4 Hours
Oral		
LD50	Mouse	5251 mg/kg
	Rat	3523 mg/kg
		10 ml/kg
Other		
LD50	Rat	3,8 mg/kg

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not available.

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.
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.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Causes damage to organs (Blood, Central nervous system) through prolonged or repeated exposure.

Aspiration hazard Not classified.

Mixture versus substance information No additional adverse health effects noted.

Other information Prolonged exposure may cause chronic effects.
Due to the presence of benzene and n-hexane, long-term or high dose rate exposures may increase the risk of anemia, leukemia and nervous-system damage. Due to presence of toluene, long-term exposure may increase the risk of hearing loss (obotoxic).

SECTION 12: Ecological information

12.1. Toxicity 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
			5 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

Components		Species	Test Results
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
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	6,702 - 10,032 mg/l, 96 hours

12.2. Persistence and degradability Not available.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Benzene (CAS 71-43-2)	2,13
Toluene (CAS 108-88-3)	2,73
Xylene (CAS 1330-20-7)	3,12 - 3,2

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not established.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations.

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

EU waste code Waste codes should be assigned by the user based on the application for which the product was used.

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

SECTION 14: Transport information

ADR

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Petroleum distillate)

14.3. Transport hazard class(es)

Class 9

Subsidiary risk -

Label(s) 9

Hazard No. (ADR) 90

Tunnel restriction code E

14.4. Packing group III

14.5. Environmental hazards Yes

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Petroleum distillate)

14.3. Transport hazard class(es)

Class 9

Subsidiary risk -

Label(s) 9

14.4. Packing group III

14.5. Environmental hazards Yes

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally Hazardous Liquid, N.o.s. (Petroleum distillate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Petroleum distillate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
ERG Code	9L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Petroleum distillate)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

F - Highly flammable

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Benzene (CAS 71-43-2)

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Benzene (CAS 71-43-2)
Petroleum distillate (CAS 8002-05-9)
Toluene (CAS 108-88-3)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Benzene (CAS 71-43-2)
Petroleum distillate (CAS 8002-05-9)

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Benzene (CAS 71-43-2)
Petroleum distillate (CAS 8002-05-9)
Toluene (CAS 108-88-3)

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Benzene (CAS 71-43-2)
Petroleum distillate (CAS 8002-05-9)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

Directive 94/33/EC on the protection of young people at work

Benzene (CAS 71-43-2)
Petroleum distillate (CAS 8002-05-9)
Toluene (CAS 108-88-3)

Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Pregnant women should not work with the product, if there is the least risk of exposure.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	Not available.
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)
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	R10 Flammable. R11 Highly flammable. R20/21 Harmful by inhalation and in contact with skin. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R45 May cause cancer. R46 May cause heritable genetic damage. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. R48/23/24/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. R63 Possible risk of harm to the unborn child. R65 Harmful: may cause lung damage if swallowed. R67 Vapors may cause drowsiness and dizziness. H225 Highly flammable liquid and vapor. H226 Flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H340 May cause genetic defects.
H350 May cause cancer.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Training information Not available.

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.