

SAFETY DATA SHEET

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

1.1. Product identifier

Name of the substance	US Export Gasolines - All Grades (Refer to Synonyms for Product Name)
Identification number	649-378-00-4
Registration number	01-2119471335-39-0088
Synonyms	93 Oct Conventional * 87 Oct Conventional * 87 Oct Conventional 7,8 RVP * 87 Oct Conventional 9,0 RVP * 87 Oct Conventional 11,5 RVP * 87 Oct Conventional 13,5 RVP * 87 Oct Conventional 15,0 RVP * VOC Region 1 RBOB Prem for 10%EtOH Blend * VOC Region 2 RBOB Prem for 10%EtOH Blend * RBOB Prem 11,5 RVP for Blndg w/10,0%EtOH * RBOB Prem 13,5 RVP for Blndg w/10,0%EtOH * RBOB Prem 15,0 RVP for Blndg w/10,0%EtOH * VOC Region 1 RBOB Unl for 10%EtOH Blendg * VOC Region 2 RBOB Unl for 10%EtOH Blendg * RBOB Unl 11,5 RVP for Blendg w/10,0%EtOH * RBOB Unl 13,5 RVP for Blendg w/10,0%EtOH * RBOB Unl 15,0 RVP for Blendg w/10,0%EtOH * Unl Conv for Oxy Blndg 7,0RVP, Atlanta * Unl Conv for Oxy Blndg 7,8RVP, Atlanta * Unl Conv for Oxy Blndg 9,0RVP, Atlanta * Unl Conv for Oxy Blndg 11,5RVP, Atlanta * Unl Conv for Oxy Blndg 13,5RVP, Atlanta * Unleaded Conv Blndstk Oxy Blendg 7,8RVP * Unleaded Conv Blndstk Oxy Blendg 9,0RVP * Unleaded Conv Blndstk Oxy Blendg 11,5RVP * Unleaded Conv Blndstk Oxy Blendg 13,5RVP * Unleaded Conv Blndstk Oxy Blendg 15,0RVP * CBOB Unleaded
SDS number	2001
Issue date	28-July-2011
Version number	06
Revision date	05-July-2013
Supersedes date	17-August-2012

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

Identified uses	Distribution of a substance. Formulation & (re) packaging of substances and mixtures. Manufacture of substance. Use as a Fuel. Use as an intermediate.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	Valero Energy Ltd
Address	1 Westferry Circus Canary Wharf London E14 4HA UK
Telephone	01/210 345 4593 (General information; US)
e-mail	CorpHSE@valero.com
Contact person	Industrial Hygienist

1.4. Emergency telephone number 0044/(0)18 65 407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

Classification F+;R12, Carc. Cat. 2;R45, Muta. Cat. 2;R46, Repr. Cat. 3;R62-63, Xn;R65, Xi;R38, R67, N;R51/53

The full text for all R-phrases is displayed in section 16.

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

Physical hazards

Flammable liquids	Category 1	H224 - Extremely flammable liquid and vapour.
-------------------	------------	---

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Germ cell mutagenicity	Category 1B	H340 - May cause genetic defects.
Carcinogenicity	Category 1B	H350 - May cause cancer.

Reproductive toxicity	Category 2	H361 - Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.
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	Extremely flammable.
Health hazards	May cause cancer. May cause heritable genetic damage. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Possible risk of harm to the unborn child. Possible risk of impaired fertility. Irritating to skin.
Environmental hazards	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards	Breathing of high vapour concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne. Prolonged and repeated contact with the product may cause skin cancer. Components of the product may be absorbed into the body through the skin. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Material will float and can be re-ignited on surface of water.
Main symptoms	Irritation of eyes and mucous membranes. Skin irritation. Dermatitis. Ingestion may cause irritation and malaise.

2.2. Label elements

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

Contains: US Export Gasolines - All Grades (Refer to Synonyms for Product Name)

Identification number 649-378-00-4

Hazard pictograms



Signal word Danger

Hazard statements
H224 - Extremely flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin 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.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention
P201 - Obtain special instructions before use.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

Storage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

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

Supplemental label information Not applicable.

2.3. Other hazards

Static accumulator - Static accumulating flammable materials can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite material and vapor may cause flash fire (or explosion).

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
US Export Gasolines - All Grades (Refer to Synonyms for Product Name)	90 - 100	86290-81-5 289-220-8	01-2119471335-39-0088	649-378-00-4	

Classification: **DSD:** F+;R12, Carc. Cat. 2;R45, Muta. Cat. 2;R46, Repr. Cat. 3;R62-63, Xn;R65, Xi;R38, R67, N;R51/53
CLP: Flam. Liq. 1;H224, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Muta. 1B;H340, Carc. 1B;H350, Repr. 2;H361, Aquatic Chronic 2;H411

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

#: This substance has been assigned Community workplace exposure limit(s).

Additional components

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Toluene	5 - 20	108-88-3 203-625-9	-	601-021-00-3	#
Ethanol	0 - 10	64-17-5 200-578-6	-	603-002-00-5	-
Benzene	0,1 - 1	71-43-2 200-753-7	-	601-020-00-8	#

Composition comments The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: First aid measures

General information If exposed or concerned: get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

4.1. Description of first aid measures

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Skin contact Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.

Eye contact Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Ingestion Rinse mouth thoroughly. Do not induce vomiting without advice from poison control centre. Do not give mouth-to-mouth resuscitation. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed Skin irritation. Defatting of the skin. Rash. May cause eye irritation on direct contact. Cyanosis (blue tissue condition, nails, lips, and/or skin). Narcosis. Unconsciousness. Decrease in motor functions. Behavioural changes. Aspiration may cause pulmonary oedema and pneumonitis. Jaundice. Liver enlargement. Oedema. Proteinuria.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. Containers may explode when heated.

5.1. Extinguishing media

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

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 Vapor may cause flash fire. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Special fire fighting procedures

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discolouration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Vapours may form explosive air mixtures even at room temperature. Prevent buildup of vapours or gasses to explosive concentrations. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 for personal protective equipment.

For emergency responders

Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Gasoline may contain oxygenated blend products (Ethanol, etc.) that are soluble in water and therefore precautions should be taken to protect surface and groundwater sources from contamination. If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Firefighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies.

6.3. Methods and material for containment and cleaning up

Extinguish all flames in the vicinity.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Cover with plastic sheet to prevent spreading. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Prevent entry into waterways, sewers, basements or confined areas. Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Should not be released into the environment. This material and its container must be disposed of as hazardous waste. Use non-sparking tools and explosion-proof equipment.

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

Before entering storage tanks and commencing any operation in a confined area check the atmosphere for oxygen content and flammability. Access to work area should be restricted to people handling the product only. Aerosol producing work should be handled in closed systems, if possible. Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapours. Wear appropriate personal protective equipment. The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. Ground container and transfer equipment to eliminate static electric sparks. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Immediately change contaminated clothes. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Distribution of a substance. Formulation & (re) packaging of substances and mixtures. Manufacture of substance. Use as a Fuel. Use as an intermediate. For detailed information see recommendations given in the exposure scenario for the uses indicated in section 1 and 15.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List

Additional components	Type	Value
Ethanol (CAS 64-17-5)	Ceiling	3800 mg/m ³ 2000 ppm
	MAK	1900 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	MAK	190 mg/m ³ 50 ppm
	STEL	380 mg/m ³ 100 ppm

Austria. TRK List

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	12,8 mg/m ³ 4 ppm
	TWA	3,2 mg/m ³ 1 ppm

Belgium. Exposure Limit Values.

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³ 1 ppm
	TWA	1907 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	77 mg/m ³ 20 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	TWA	300 mg/m ³
Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
Ethanol (CAS 64-17-5)	TWA	1000 mg/m ³
Toluene (CAS 108-88-3)	STEL	384 mg/m ³
	TWA	192 mg/m ³

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	30 mg/m ³ 10 ppm
	TWA	375 mg/m ³ 100 ppm

Czech Republic. OELs. Government Decree 361

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	Ceiling	1000 mg/m ³
	TWA	400 mg/m ³
Additional components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	10 mg/m ³
	TWA	3 mg/m ³
Ethanol (CAS 64-17-5)	Ceiling	3000 mg/m ³

Czech Republic. OELs. Government Decree 361

Additional components	Type	Value
Toluene (CAS 108-88-3)	TWA	1000 mg/m ³
	Ceiling	500 mg/m ³
	TWA	200 mg/m ³

Denmark. Exposure Limit Values

Additional components	Type	Value
Benzene (CAS 71-43-2)	TLV	1,6 mg/m ³
		0,5 ppm
Ethanol (CAS 64-17-5)	TLV	1900 mg/m ³
		1000 ppm
Toluene (CAS 108-88-3)	TLV	94 mg/m ³
		25 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	9 mg/m ³
		3 ppm
		1,5 mg/m ³
Ethanol (CAS 64-17-5)	STEL	0,5 ppm
		1900 mg/m ³
		1000 ppm
Toluene (CAS 108-88-3)	STEL	1000 mg/m ³
		500 ppm
		384 mg/m ³
	TWA	100 ppm
		192 mg/m ³
		50 ppm

Finland. Workplace Exposure Limits

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	STEL	2500 mg/m ³
		1300 ppm
		1900 mg/m ³
Toluene (CAS 108-88-3)	STEL	1000 ppm
		380 mg/m ³
		100 ppm
	TWA	81 mg/m ³
		25 ppm

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Additional components	Type	Value
Benzene (CAS 71-43-2)	VME	3,25 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	VLE	9500 mg/m ³
		5000 ppm
		1900 mg/m ³
Toluene (CAS 108-88-3)	VLE	1000 ppm
		384 mg/m ³
		100 ppm
	VME	76,8 mg/m ³
		20 ppm

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Additional components	Type	Value
Ethanol (CAS 64-17-5)	TWA	960 mg/m ³
		500 ppm
Toluene (CAS 108-88-3)	TWA	190 mg/m ³

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Additional components	Type	Value
		50 ppm

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Additional components	Type	Value
Ethanol (CAS 64-17-5)	AGW	960 mg/m ³ 500 ppm
Toluene (CAS 108-88-3)	AGW	190 mg/m ³ 50 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Additional components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m ³ 150 ppm
	TWA	375 mg/m ³ 100 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Additional components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	3 mg/m ³
Ethanol (CAS 64-17-5)	STEL	7600 mg/m ³
	TWA	1900 mg/m ³
Toluene (CAS 108-88-3)	STEL	380 mg/m ³
	TWA	190 mg/m ³

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	TWA	180 mg/m ³

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	1,6 mg/m ³ 0,5 ppm
Ethanol (CAS 64-17-5)	TWA	1900 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	STEL	188 mg/m ³ 50 ppm
	TWA	94 mg/m ³ 25 ppm

Ireland. Occupational Exposure Limits

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3 mg/m ³ 1 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	192 mg/m ³ 50 ppm

Italy. OELs

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	STEL	500 ppm
	TWA	300 ppm

Italy. OELs

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	2,5 ppm
	TWA	0,5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
	TWA	192 mg/m ³
Toluene (CAS 108-88-3)		50 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	TWA	1000 mg/m ³
	STEL	150 mg/m ³
Toluene (CAS 108-88-3)		40 ppm
	TWA	50 mg/m ³
		14 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	19 mg/m ³
		6 ppm
	TWA	3,25 mg/m ³
Ethanol (CAS 64-17-5)		1 ppm
	STEL	1900 mg/m ³
	TWA	1000 ppm
Toluene (CAS 108-88-3)		1000 mg/m ³
	STEL	500 ppm
	TWA	384 mg/m ³
		100 ppm
		192 mg/m ³
		50 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Additional components	Type	Value
Toluene (CAS 108-88-3)	STEL	384 mg/m ³
		100 ppm
	TWA	192 mg/m ³
		50 ppm

Luxembourg. OELs for Carcinogens/Mutagens

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
		1 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Additional components	Type	Value
Toluene (CAS 108-88-3)	STEL	384 mg/m ³
		100 ppm
	TWA	192 mg/m ³
		50 ppm

Netherlands. OELs (binding)

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	STEL	480 mg/m ³
	TWA	240 mg/m ³
Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
Ethanol (CAS 64-17-5)	STEL	1900 mg/m ³

Netherlands. OELs (binding)

Additional components	Type	Value
Toluene (CAS 108-88-3)	TWA	260 mg/m ³
	STEL	384 mg/m ³
	TWA	150 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Additional components	Type	Value
Benzene (CAS 71-43-2)	TLV	3 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	TLV	950 mg/m ³
		500 ppm
Toluene (CAS 108-88-3)	TLV	94 mg/m ³
		25 ppm

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	1,6 mg/m ³
Ethanol (CAS 64-17-5)	TWA	1900 mg/m ³
Toluene (CAS 108-88-3)	STEL	200 mg/m ³
	TWA	100 mg/m ³

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Additional components	Type	Value
Toluene (CAS 108-88-3)	STEL	384 mg/m ³
		100 ppm
		TWA
		192 mg/m ³
		50 ppm

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	2,5 ppm
	TWA	0,5 ppm
Ethanol (CAS 64-17-5)	TWA	1000 ppm
Toluene (CAS 108-88-3)	TWA	50 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Material	Type	Value
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	STEL	500 mg/m ³
	TWA	300 mg/m ³
Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³
		1 ppm
Ethanol (CAS 64-17-5)	STEL	9500 mg/m ³
		5000 ppm
	TWA	1900 mg/m ³
		1000 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³
		100 ppm
	TWA	192 mg/m ³
		50 ppm

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Additional components	Type	Value
Ethanol (CAS 64-17-5)	TWA	960 mg/m ³
		500 ppm
Toluene (CAS 108-88-3)	TWA	192 mg/m ³
		50 ppm

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³ 1 ppm
Ethanol (CAS 64-17-5)	TWA	1900 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	TWA	192 mg/m ³ 50 ppm

Spain. Occupational Exposure Limits

Additional components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1910 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	192 mg/m ³ 50 ppm

Sweden. Occupational Exposure Limit Values

Additional components	Type	Value
Benzene (CAS 71-43-2)	STEL	9 mg/m ³ 3 ppm
	TWA	1,5 mg/m ³ 0,5 ppm
Ethanol (CAS 64-17-5)	STEL	1900 mg/m ³ 1000 ppm
	TWA	1000 mg/m ³ 500 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	192 mg/m ³ 50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	1,6 mg/m ³ 0,5 ppm
Ethanol (CAS 64-17-5)	STEL	1920 mg/m ³ 1000 ppm
	TWA	960 mg/m ³ 500 ppm
Toluene (CAS 108-88-3)	STEL	760 mg/m ³ 200 ppm
	TWA	190 mg/m ³ 50 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³ 1 ppm
Ethanol (CAS 64-17-5)	TWA	1920 mg/m ³ 1000 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	191 mg/m ³ 50 ppm

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

Additional components	Type	Value
Toluene (CAS 108-88-3)	STEL	384 mg/m ³ 100 ppm
	TWA	192 mg/m ³

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

Additional components	Type	Value
		50 ppm

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

Additional components	Type	Value
Benzene (CAS 71-43-2)	TWA	3,25 mg/m ³ 1 ppm

Biological limit values

Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV) , Social Affairs and Ministry of Health

Additional components	Value	Determinant	Specimen	Sampling time
Toluene (CAS 108-88-3)	500 nmol/l	Toluene concentration	Blood	*

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

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Additional components	Value	Determinant	Specimen	Sampling time
Benzene (CAS 71-43-2)	5 mg/l	Acide muconique	Urine	*
Toluene (CAS 108-88-3)	2500 mg/g	Acide hippurique	Creatinine in urine	*
	2500 mg/g	Acide hippurique	Creatinine in urine	*
	1 mg/l	Toluène	Venous blood	*

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

Germany. TRGS 903, BAT List (Biological Limit Values)

Additional components	Value	Determinant	Specimen	Sampling time
Toluene (CAS 108-88-3)	3 mg/l	o-Kresol	Urine	*
	1 mg/l	Toluol	Blood	*

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

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

Additional components	Value	Determinant	Specimen	Sampling time
Benzene (CAS 71-43-2)	1,5 mg/g	t,t-muconic acid	Creatinine in urine	*
Ethanol (CAS 64-17-5)	25 %	red blood cell or total blood acetylcholinest erase activity (EC. 3.1.1.7.)	Reduction from individual baseline activity in red blood cells	*
Toluene (CAS 108-88-3)	1 mg/g	o-cresol	Creatinine in urine	*

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

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Additional components	Value	Determinant	Specimen	Sampling time
Toluene (CAS 108-88-3)	1600 mg/g	Hippuric acid	Creatinine in urine	*
	1,03 mg/g	o-cresol (Phenol, 2-methyl-)	Creatinine in urine	*
	2401 mg/l	Hippuric acid	Urine	*
	1,5 mg/l	o-cresol (Phenol, 2-methyl-)	Urine	*
	600 micrograms/liter	Toluene	Blood	*

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

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

Additional components	Value	Determinant	Specimen	Sampling time
Benzene (CAS 71-43-2)	0,045 mg/g	Ácido S-Fenilmercaptúrico	Creatinine in urine	*
	2 mg/l	Ácido t,t-Mucónico	Urine	*
Toluene (CAS 108-88-3)	5 micrograms/liter	Benceno total	Blood	*
	1,6 g/g	Ácido hipúrico	Creatinine in urine	*
	0,5 mg/l	o-cresol (Phenol, 2-methyl-)	Urine	*
	0,05 mg/l	Tolueno	Blood	*

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

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Additional components	Value	Specimen	Sampling time
Benzene (CAS 71-43-2)	25 µg/g	Creatinine in urine	*
Toluene (CAS 108-88-3)	2 g/g	Creatinine in urine	*
	0,5 mg/l	Urine	*
	600 micrograms/liter	Blood	*

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Material	Type	Route	Value	Form
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	Workers	Inhalation	1300 mg/m³/15min	Acute Systemic effects
		Inhalation	1100 mg/m³/15min	Acute Local effects
		Inhalation	840 mg/m³/8h	Long term Local effects

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

EU Exposure Limit Values: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

EU. OELs from Annex III, Part A to Directive 2004/37/EC: Skin designation

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

8.2. Exposure controls

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Keep working clothes separately. Launder contaminated clothing before reuse.

Eye/face protection Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

Skin protection

- Hand protection Wear chemical-resistant, impervious gloves. Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Viton, Polyurethane, Nitrile rubber. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

- Other Protection suit must be worn. Anti-static and flame-retardant protective clothing is recommended.

Respiratory protection Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards When material is heated, wear gloves to protect against thermal burns.

Hygiene measures	Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.
Environmental exposure controls	Contain spills and prevent releases and observe national regulations on emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colorless to yellow liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Colorless to yellow.
Odour	Petroleum.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	25 - 220 °C (77 - 428 °F)
Flash point	< -40,0 °C (< -40,0 °F) Tagliabue closed cup Cup ASTM D56
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1,4
Flammability limit - upper (%)	7,6
Vapour pressure	35 - 90 kPa @ 37,8 °C (100 °F)
Vapour density	3 - 4 Typical.
Relative density	Not available.
Solubility(ies)	Insoluble.
Partition coefficient (n-octanol/water)	Log Pow: 2 - 7
Auto-ignition temperature	> 280 °C (> 536 °F)
Decomposition temperature	Not available.
Viscosity	<= 1 mm ² /s @ 40 °C (104 °F)
Explosive properties	Not available.
Oxidizing properties	Not available.

9.2. Other information

Explosive limit	Not available.
------------------------	----------------

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	Stable under normal temperature conditions and recommended use.
10.3. Possibility of hazardous reactions	Not available.
10.4. Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.
10.5. Incompatible materials	Strong acids. Strong oxidizers such as nitrates, chlorates, peroxides.
10.6. Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

General information	May be fatal if swallowed and enters airways. Occupational exposure to the substance or mixture may cause adverse effects.
----------------------------	--

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise. Swallowing or vomiting of the liquid may result in aspiration into the lungs.
------------------	---

Inhalation	Vapours may cause drowsiness and dizziness.
Skin contact	Causes skin irritation. Repeated exposure may cause skin dryness or cracking. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms	Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Narcosis. Unconsciousness. Behavioural changes. Decrease in motor functions. Cyanosis (blue tissue condition, nails, lips, and/or skin). Defatting of the skin. Rash. Oedema.

11.1. Information on toxicological effects

Acute toxicity	Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. Irritant effect on skin. May irritate and cause stomach pain, vomiting, diarrhoea and nausea. Human evidence indicates that the product has very low acute oral, dermal or inhalation toxicity. However, it can produce severe injury if taken into the lung as a liquid, and there may be profound central nervous system depression following prolonged exposure to high levels of vapour.
-----------------------	--

Product	Species	Test results
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3,75 g/kg
<i>Inhalation</i>		
LD50	Rat	> 20000 mg/kg, 4 hours
<i>Oral</i>		
LD50	Rat	> 5 ml/kg

Skin corrosion/irritation	Causes skin irritation. For a 4-hour exposure, the Primary Irritation Index (PII) in rabbits is: 4.8/8.0.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation. The Draize eye irritation mean score in rabbits for a 24-hour exposure was: 0/110.
Respiratory sensitisation	Not classified.
Skin sensitisation	Not classified. The results of a skin sensitisation study in guinea pigs were negative.
Germ cell mutagenicity	May cause genetic defects. In in-vitro experiments, neither benzene, toluene nor xylene changed the number of sister-chromatid exchanges (SCEs) or the number of chromosomal aberrations in human lymphocytes. However, toluene and xylene caused a significant cell growth inhibition which was not observed with benzene in the same concentrations. In in-vivo experiments, toluene changed the number of sister-chromatid exchanges (SCEs) in human lymphocytes. Toluene may cause heritable genetic damage.
Carcinogenicity	May cause cancer. Contains benzene, a classified IARC 1 chemical (Known Human Carcinogen). Also contains ethylbenzene, which is classified as an IARC 2B chemical (Possibly Carcinogenic to Humans).

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)	1 Carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)	2B Possibly carcinogenic to humans.

Reproductive toxicity	Suspected of damaging the unborn child. Suspected of damaging fertility. Benzene, xylene and toluene have demonstrated animal effects of reproductive toxicity. Animal studies of benzene have shown testicular effects, alterations in reproductive cycles, chromosomal aberrations and embryo/fetotoxicity. Ethanol has demonstrated human effects of reproductive toxicity. May damage fertility or the unborn child. Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility. Avoid exposure to women during early pregnancy. Avoid contact during pregnancy/while nursing.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	Not available.
Other information	Symptoms may be delayed.

SECTION 12: Ecological information

12.1. Toxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
-----------------------	---

Product	Species	Test results	
US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)			
Aquatic			
Crustacea	LC50	Daphnia magna	3 mg/l, 48 hours
		Mysidopsis bahia	1,8 mg/l, 96 hours
Fish	LC50	Oncorhynchus mykiss	2,7 mg/l, 96 hours
		Sheepshead minnow (Cyprinodon variegatus)	8,3 mg/l, 96 hours
12.2. Persistence and degradability	Expected to be inherently biodegradable.		
12.3. Bioaccumulative potential	Potential to bioaccumulate is low.		
Partition coefficient n-octanol/water (log Kow)	Log Pow: 2 - 7		
Benzene (CAS 71-43-2)		2,13	
Ethanol (CAS 64-17-5)		-0,31	
Toluene (CAS 108-88-3)		2,73	
Bioconcentration factor (BCF)	Not available.		
12.4. Mobility in soil	Not available.		
Mobility in general	The product is insoluble in water. It will spread on the water surface while some of the components will eventually sediment in water systems. The volatile components of the product will spread in the atmosphere.		
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.		
12.6. Other adverse effects	Toxic to aquatic life with long lasting effects. The product contains volatile organic compounds which have a photochemical ozone creation potential. Oil spills are generally hazardous to the environment.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	13 07 02* 13 07 03*
Disposal methods/information	Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Do not discharge into drains, water courses or onto the ground.

SECTION 14: Transport information

ADR

14.1. UN number	UN1203
14.2. UN proper shipping name	Gasoline
14.3. Transport hazard class(es)	3
Subsidiary class(es)	-
14.4. Packing group	II
14.5. Environmental hazards	Yes
Tunnel restriction code	Not available.
Labels required	3
14.6. Special precautions for user	Not available.

RID

14.1. UN number	UN1203
14.2. UN proper shipping name	Gasoline
14.3. Transport hazard class(es)	3
Subsidiary class(es)	-
14.4. Packing group	II
14.5. Environmental hazards	Yes
Labels required	3

14.6. Special precautions for user Not available.

ADN

14.1. UN number UN1203
14.2. UN proper shipping name Gasoline
14.3. Transport hazard class(es) 3
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards Yes
Labels required 3
14.6. Special precautions for user Not available.

IATA

14.1. UN number UN1203
14.2. UN proper shipping name Gasoline
14.3. Transport hazard class(es) 3
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards Yes
Labels required 3
ERG Code Not available.
14.6. Special precautions for user Not available.

IMDG

14.1. UN number UN1203
14.2. UN proper shipping name Gasoline
14.3. Transport hazard class(es) 3
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards
Marine pollutant Yes
Labels required 3
14.6. Special precautions for user Not available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable. However, this product is a liquid and if transported in bulk covered under MARPOL 73/78, Annex I.

SECTION 15: Regulatory information

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

EU regulations

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(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

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

Ethanol (CAS 64-17-5)

Toluene (CAS 108-88-3)

US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)

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)

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)

Toluene (CAS 108-88-3)

US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)

Other EU regulations

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

Not regulated.

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)

Ethanol (CAS 64-17-5)

Toluene (CAS 108-88-3)

US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)

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

Benzene (CAS 71-43-2)

Toluene (CAS 108-88-3)

US Export Gasolines - All Grades (Refer to Synonyms for Product Name) (CAS 86290-81-5)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. 96/82/EC (Seveso II) Directive; Part 2 (Classified Substances) - Extremely Flammable

National regulations

Young people under 18 years old are not allow to work with this product according to the EU Directive 94/33/EC on the protection of young people at work. Pregnant women should not work with the product, if there is the least risk of exposure.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DSD: Directive 67/548/EEC.
CLP: Regulation No. 1272/2008.
DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative.
eSDS: extended Safety Data Sheet.
STP: Sewage Treatment Plant.

References

CLP files – <http://concaawe.org/>
Chemical safety report.

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R12 Extremely flammable.
R38 Irritating to skin.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
H224 Extremely flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin 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.
H411 Toxic to aquatic life with long lasting effects.

This SDS contains revisions in the following section(s):

This safety data sheet contains revisions in the following section(s): 2, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16.

Training information

Follow training instructions when handling this material.

Disclaimer

This material Safety Data Sheet (SDS) was prepared in accordance with EC No 1272/2008 by Valero Energy Ltd. Valero Energy Ltd. does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this SDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.