

Safety Data Sheet

Gasoline E5

Replaces date: 23-11-2015

Revision date: 12-12-2016

Version: 2.0.0

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

1.1. Product identifier

Trade name: Gasoline E5

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

Recommended uses: Fuel for spark ignition piston engines.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Statoil ASA (Site: Mongstad)

Address: Forusbeen 50

Zip code: 4035 Stavanger

Country: NORWAY

E-mail: chem@statoil.com

Phone: +47 56 34 40 00

1.4. Emergency Telephone Number

0870 600 6266 (UK only) Only available to health professionals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Flam. Liq. 1;H224 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Muta. 1B;H340 Carc. 1B;H350 Repr. 2;H361d STOT RE 2;H373 Aquatic Chronic 2;H411

Most serious harmful effects: Extremely flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Pictograms



Signal word: Danger

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Contains

Substance: Gasoline

H-phrases

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.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

P-phrases

P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301/310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P403/233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS number	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
Gasoline	86290-81-5	289-220-8	01-2119471335-39-XXXX	85 - 100%		Flam. Liq. 1;H224 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Muta. 1B;H340 Carc. 1B;H350 Repr. 2;H361d STOT RE 2;H373 Aquatic Chronic 2;H411
tert-butyl methyl ether	1634-04-4	216-653-1	01-2119452786-27-0059	0 - 15%		Flam. Liq. 2;H225 Skin Irrit. 2;H315
toluene	108-88-3	203-625-9		7 - 15%		Flam. Liq. 2;H225 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Repr. 2;H361d STOT RE 2;H373
ethanol	64-17-5	200-578-6		0 - 5%		Flam. Liq. 2;H225
n-hexane	110-54-3	203-777-6		0 - < 3%		Flam. Liq. 2;H225 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Repr. 2;H361f STOT RE 2;H373 Aquatic Chronic 2;H411

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benzene	71-43-2	200-753-7		0.7 - 2%		Fam. 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
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Please see section 16 for the full text of H-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air. Seek medical advice in case of persistent discomfort.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do not induce vomiting. If vomiting occurs, keep head low so that stomach contents do not enter lungs. Immediately call a POISON CENTER or doctor/physician.
Skin contact:	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eye contact:	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Burns:	Flush with water until pain ceases. Remove clothing that is not stuck to the skin - seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
General:	When obtaining medical advice, show the safety data sheet or label.

4.2. Most important symptoms and effects, both acute and delayed

Irritating to skin - may cause reddening. May cause genetic defects. May cause cancer. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. May cause chemical pneumonia if ingested or vomited. May cause damage to organs. Suspected of damaging the unborn child.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Extinguish with powder, foam or water mist. Use water or water mist to cool non-ignited stock.
Unsuitable extinguishing media:	Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed: Nitrous gases/ Carbon monoxide and carbon dioxide.

5.3. Advice for fire-fighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely.

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Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Smoking and naked flames prohibited. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment. Wear gloves. Stay upwind/keep distance from source. Keep unnecessary personnel away. Provide good ventilation. Wear safety goggles if there is a risk of eye splash. In case of insufficient ventilation, wear respiratory protective equipment.

For emergency responders: In addition to the above: Chemical protective suit equivalent to EN 943-2 is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers. Wipe up minor spills with a cloth.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Work under effective process ventilation (e.g. local exhaust ventilation). Running water and eye wash equipment must be available. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not store, use and/or consume foods, beverages or tobacco products in the work room. Store personal protective equipment separately from other clothing. Eating, drinking and smoking should not be permitted where there is a risk of contamination from the carcinogenic substance. Appropriate warning signs should be used. Areas should be set aside where people can eat, drink, and smoke without risking contamination by the substance. Appropriate hygiene measures should include the establishment of a cleaning regime to remove contamination from walls, surfaces, etc. Adequate washing facilities should be provided in order to enable people exposed to meet a standard of personal hygiene consistent with adequate control of exposure and the need to avoid the spread of carcinogenic substances.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Keep in tightly closed original packaging. Store in a well-ventilated area. Do not store with the following: Strong oxidisers/ Strong reducing agents.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limit

Substance name	Time period	ppm	mg/m3	Comment	Remarks
toluene	8h	50	191		Sk
toluene	15m	100	384		Sk
tert-butyl methyl ether	8h	50	183.5		
tert-butyl methyl ether	15m	100	367		
ethanol	8h	1.000	1.920		
ethanol	15m				
n-hexane	8h	20	72		
n-hexane	15m				
benzene	8h	1	3.25		Carc, Sk
benzene	15m				Carc, Sk

Carc = Capable of causing cancer and/or heritable genetic damage

Sk = Can be absorbed through skin

Measuring methods: Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis: EH40/2005 Workplace exposure limits. Last amended December 2011.

PNEC

Gasoline				
Exposure	Value	Assessment Factor	Extrapolation Method	Note
PNEC aqua (freshwater)	2,6 mg/l	1		
PNEC aqua (marine water)	13,8 mg/l	1		

DNEL - workers

Gasoline					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - systemic effects)	1300 mg/m3/15m	3	LOAEC		
Inhalation DNEL (acute/short-term exposure - local effects)	1100 mg/m3/15m	3	LOAEC		
Inhalation DNEL (long-term exposure - local effects)	840 mg/m3/8h	6	NOAEC		

DNEL - general population

Gasoline					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note

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Inhalation DNEL (acute/short-term exposure - systemic effects)	1200 mg/m ³ /15m	5	LOAEC		
Inhalation DNEL (acute/short-term exposure - local effects)	640 mg/m ³ /15m	5	LOAEC		
Inhalation DNEL (long-term exposure - local effects)	180 mg/m ³ /15m	10	NOAEC		

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 166.

Personal protective equipment, hand protection: Wear gloves. Type of material: Nitrile rubber. Penetration time: >8 hours. Gloves must conform to EN 374.

Personal protective equipment, respiratory protection: Light use (small volume, shortterm contact (below 10 min.)): Not required.
Medium use (medium volume, medium contact (1-2 hours)): A/AX.
Heavy use (high volume, longterm contact (more than 2 hours)): In case of insufficient ventilation: Wear fresh air respiratory protective equipment.
Respiratory protection must conform to one of the following standards: EN 136/140/145.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Clear
Odour	Weak
Solubility	No data
Explosive properties	Non-explosive
Oxidising properties	Non-oxidising.

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flash Point	No data	
Evaporation rate	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	45 - 100 kPa	EN 13016-1

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Vapour density	No data	
Relative density	0.72 - 0.775 g/cm ³	EN ISO 12185 / EN ISO 3675 (15 °C)
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

9.2 Other information

Other Information: None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong oxidisers/ Strong reducing agents.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

Product vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Strong oxidisers/ Strong reducing agents.

10.6. Hazardous decomposition products

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: Carbon monoxide and carbon dioxide/ Nitrous gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 5000mg/kg		(OECD 401)	

Ingestion may cause discomfort. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal

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Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		> 2000mg/kg		(OECD 402)	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 (vapour)		> 5610mg/m3		(OECD 403)	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Skin corrosion/irritation

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit				Irritating	(OECD 404)	

Irritating to skin - may cause reddening.

Serious eye damage/eye irritation

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit		72h		Iritis = 0	(OECD 405)	

May cause eye irritation. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Respiratory sensitisation or skin sensitisation

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Guinea pig				Non-sensitising	(OECD 406)	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Germ cell mutagenicity: May cause genetic defects.

Carcinogenic properties

Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
				Neoplastic effects observed.		

May cause cancer.

Reproductive toxicity: Suspected of damaging the unborn child.

Single STOT exposure: The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

Repeated STOT exposure

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Gasoline

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	NOAEL (Dermal)		3750 mg/kg bw/day		(OECD 410)	

Prolonged or repeated exposure by skin contact or inhalation of vapours may cause damage to the central nervous system.
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: May cause chemical pneumonia if ingested or vomited.

Other toxicological effects: None known.

SECTION 12: Ecological information

12.1. Toxicity

Gasoline

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Pimephales promelas	96h	96hLL50	8.2 mg/l			
Crustacea	Daphnia magna	48h	48hEL50	4.5 mg/l			
Algae	Selenastrum capricornutum	72h	72hEC50	3.1 mg/l			
Fish	Pimephales promelas		21dNOEL	2.6 mg/l			
Crustacea	Daphnia magna		21dNOEL	2.6 mg/l			

tert-butyl methyl ether

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Crustacea	Daphnia sp.	48h	48hEC50	100 - 1000mg/l			
Algae		72h	72hEC50	2300 mg/l			

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Gasoline

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
					Readily biodegradable.		

tert-butyl methyl ether

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
					Not readily biodegradable.		

Readily biodegradable.

12.3. Bioaccumulative potential

Test data are not available.

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12.4. Mobility in soil

The product contains at least one substance with low soil mobility.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water. Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

Empty, cleansed packaging should be disposed of for recycling. Uncleansed packaging is to be disposed of via the local waste-removal scheme.

Absorbent/cloth contaminated with the product: EWC code: 15 02 02 absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

EWC code: Depends on line of business and use, for instance 13 07 02* petrol

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN-No.:	1203	14.4. Packing group:	II
14.2. UN proper shipping name:	GASOLINE	14.5. Environmental hazards:	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	3		
Hazard label(s):	3		
Hazard identification number:	33	Tunnel restriction code:	D/E
Other Information:	-		

Inland water ways transport (ADN)

14.1. UN-No.:	1203	14.4. Packing group:	II
14.2. UN proper shipping name:	GASOLINE	14.5. Environmental hazards:	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	3		
Hazard label(s):	3		

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Environmentally hazardous in tank vessels:

Other Information: -

Sea transport (IMDG)

14.1. UN-No.:	1203	14.4. Packing group:	II
14.2. UN proper shipping name:	GASOLINE	14.5. Environmental hazards:	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	3	Environmental Hazardous Substance Name(s):	
Hazard label(s):	3		
EmS:	F-E, S-E	IMDG Code segregation group:	- None -

Other Information:

Air transport (ICAO-TI / IATA-DGR)

14.1. UN-No.:	1203	14.4. Packing group:	II
14.2. UN proper shipping name:	GASOLINE	14.5. Environmental hazards:	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	3		
Hazard label(s):	3	Other Information:	-

14.6. Special precautions for user

None.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions:

Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product.

Covered by:

Regulation about the performance of work, use of work equipment and appurtenant technical requirements, FOR-2011-12-06-1357. Latest amended by FOR-2013-06-18-658.

Regulation about protection against exposure to chemicals at the workplace, FOR 2001-04-30-443. (Latest amendment:2005-04-26)

Directive 2012/18/EU (Seveso), E2 Hazardous to the Aquatic Environment in Category Chronic 2 : Column 2: 200 t, Column 3: 500 t.

Directive 2012/18/EU (Seveso), P5c FLAMMABLE LIQUIDS: Column 2: 5000 t, Column 3: 50000 t.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

15.2. Chemical Safety Assessment

Other Information:

Chemical safety assessments have been performed for the following substances:

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SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
1.0.0	23-11-2015	CGJ/Bureau Veritas HSE Denmark A/S	
2.0.0	12-12-2016	CGJ/Bureau Veritas HSE Denmark A/S	1, 2, 3, 4, 11, 16

Abbreviations:

DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very Persistent and Very Bioaccumulative
STOT: Specific Target Organ Toxicity

Other Information:

This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with 1907/2006/EC (REACH) as subsequently changed.

Training advice:

A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method:

Calculation based on the hazards of the known components.

List of relevant H-statements

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Quality assurance of SDS:

Bureau Veritas HSE Denmark /SRU

SDS is prepared by

Company:

Bureau Veritas HSE Denmark A/S

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Document language: GB