Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

STP Octane Booster 12 oz

Version number: 8.3
Replaces version of: 2023-06-05 (7)

Revision: 2023-09-11

SECTION 1: Identification

1.1 Product identifier

Trade name **STP Octane Booster 12 oz**

Alternative number(s) 071153653825

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

Relevant identified uses General use

1.3 Details of the supplier of the safety data sheet

Energizer Manufacturing, Inc.
25225 Detroit Rd.
Westlake OH 44145
United States

Telephone: 800-383-7323; 314-985-2000 (USA / CANADA)
e-mail: Autocare.regulatory@energizer.com
Website: http://data.energizer.com

1.4 Emergency telephone number

Emergency information service

FOR EMERGENCY in USA & Canada CALL +1 800 255-3924 / For International CALL +1 813 248 0585
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.1I	acute toxicity (inhal.)	3	Acute Tox. 3	H331
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.5	germ cell mutagenicity	1B	Muta. 1B	H340
A.6	carcinogenicity	1A	Carc. 1A	H350
A.7	reproductive toxicity	2	Repr. 2	H361d
A.8D	specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336
A.10	aspiration hazard	1	Asp. Tox. 1	H304
B.6	flammable liquid	3	Flam. Liq. 3	H226

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS02, GHS06, GHS07, GHS08

- Hazard statements

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.

- Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist/vapors.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P311	Call a poison center/doctor.
P321	Specific treatment (see on this label).
P331	Do NOT induce vomiting.
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

- Precautionary statements

P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling — Distillates (petroleum), hydrodesulfurized middle, naphthalene, benzene, Jet A-1, toluene

2.3 Other hazards

Hazards not otherwise classified

May be harmful if swallowed (GHS category 5: acutely toxic - oral).
Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

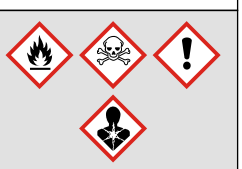
SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Straight-run Kerosene	CAS No 64741-44-2	10 – < 25	Acute Tox. 4 / H332 Flam. Liq. 3 / H226	
Distillates (petroleum), hydrodesulfurized middle	CAS No 64742-80-9	10 – < 25	Acute Tox. 4 / H332 Carc. 1B / H350 Flam. Liq. 3 / H226	
Distillates (petroleum), hydrodesulfurized light catalytic cracked	CAS No 68333-25-5	10 – < 25	Acute Tox. 4 / H332 Carc. 1B / H350 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	
Jet A-1	CAS No 8008-20-6	10 – < 25	Acute Tox. 3 / H331 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Kerosine (petroleum), hydrodesulfurized	CAS No 64742-81-0	5 – < 10	Acute Tox. 3 / H331 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	
Distillates (petroleum), light hydrocracked	CAS No 64741-77-1	1 – < 5	Acute Tox. 3 / H331 Carc. 2 / H351 Flam. Liq. 3 / H226	
Solvent naphtha (petroleum), light arom.	CAS No 64742-95-6	1 – < 5	Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Flam. Liq. 1 / H224	
Tricarbonyl(methylcyclopentadienyl)manganese	CAS No 12108-13-3	1 – < 5	Acute Tox. 3 / H301 Acute Tox. 2 / H310 Acute Tox. 1 / H330	
naphthalene	CAS No 91-20-3	< 1	Acute Tox. 4 / H302 Acute Tox. 1 / H330 Carc. 2 / H351 STOT SE 2 / H371 STOT RE 2 / H373	
Propylbenzene	CAS No 103-65-1 RTECS No DA8750000	< 1	Carc. 2 / H351 STOT SE 3 / H335 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	
cumene	CAS No 98-82-8	< 1	Carc. 2 / H351 STOT SE 3 / H335 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	
2-ethylhexan-1-ol	CAS No 104-76-7	< 1	Acute Tox. 2 / H330 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335 Flam. Liq. 4 / H227	
benzene	CAS No 71-43-2	< 1	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Muta. 1B / H340 Carc. 1A / H350 STOT RE 1 / H372 Asp. Tox. 1 / H304 Flam. Liq. 2 / H225	
ethylbenzene	CAS No 100-41-4	< 1	Acute Tox. 4 / H332 Carc. 2 / H351 STOT RE 2 / H373 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226	

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
toluene	CAS No 108-88-3	< 1	Acute Tox. 1 / H330 Skin Irrit. 2 / H315 Repr. 2 / H361d STOT SE 3 / H336 STOT RE 2 / H373 Asp. Tox. 1 / H304 Flam. Liq. 2 / H225	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Narcotic effects.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	C7-C8 aromatics		TLV®		200						AC-GIH® 2023
US	C9-C15 aromatics		TLV®		100						AC-GIH® 2023
US	ethylbenzene	100-41-4	PEL (CA)	5	22	30	130				Cal/OSHA PEL
US	ethylbenzene	100-41-4	REL	100 (10 h)	435 (10 h)	125	545				NIOSH REL
US	ethylbenzene	100-41-4	TLV®	20							AC-GIH® 2023
US	ethylbenzene	100-41-4	PEL	100	435						29 CFR 1910.1000
US	2-ethyl-1-hexanol	104-76-7	TLV®	5							AC-GIH® 2023
US	toluene	108-88-3	REL	100 (10 h)	375 (10 h)	150	560				NIOSH REL
US	toluene	108-88-3	TLV®	20							AC-GIH® 2023
US	toluene	108-88-3	PEL	200		500 (10 min)		300			29 CFR 1910.1000
US	toluene (toluol)	108-88-3	PEL (CA)	10	37	150	560	500			Cal/OSHA PEL
US	2-methylcyclopentadienyl manganese tricarbonyl	12108-13-3	PEL (CA)		0.2					Mn	Cal/OSHA PEL

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	2-methylcyclopentadienyl manganese tricarbonyl	12108-13-3	REL		0.2 (10 h)					Mn	NIOSH REL
US	2-methylcyclopentadienyl manganese tricarbonyl	12108-13-3	TLV®		0.2					Mn, H	ACGIH® 2023
US	manganese compounds	12108-13-3	PEL						5	Mn	29 CFR 1910.1000
US	Kerosine - unspecified	64742-81-0	TLV®		200					vap, Hy-Carb, H	ACGIH® 2023
US	benzene	71-43-2	PEL (CA)	1		5					Cal/OSHA PEL
US	benzene	71-43-2	PEL	1		5					29 CFR 1910.1000
US	benzene	71-43-2	REL	0.1 (10 h)		1				appx-A	NIOSH REL
US	benzene	71-43-2	TLV®	0.5		2.5				H	ACGIH® 2023
US	benzene	71-43-2	PEL	10		50 (10 min)		25		us-pel-z2a	29 CFR 1910.1000
US	Kerosine (petroleum)	8008-20-6	REL		100 (10 h)						NIOSH REL
US	Kerosine (petroleum) (jet fuels, JP 5)	8008-20-6	TLV®		200					vap, Hy-Carb, H	ACGIH® 2023
US	naphthalene	91-20-3	PEL (CA)	0.1	0.5						Cal/OSHA PEL
US	naphthalene	91-20-3	REL	10 (10 h)	50 (10 h)	15	75				NIOSH REL

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	naphthalene	91-20-3	PEL	10	50						29 CFR 1910.1000
US	naphthalene	91-20-3	TLV®	10						H	ACGIH® 2023
US	cumene	98-82-8	REL	50 (10 h)	245 (10 h)						NIOSH REL
US	cumene	98-82-8	TLV®	5							ACGIH® 2023
US	cumene	98-82-8	PEL	50	245						29 CFR 1910.1000
US	cumene (isopropylbenzene)	98-82-8	PEL (CA)	50	245						Cal/OSHA PEL

Notation

appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
HyCarb	calculated as hydrocarbons
Mn	calculated as Mn (manganese)
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified
us-pel-z2a	This standard applies to the industry segments exempt from the 1 ppm 8-hour TWA and 5 ppm STEL of the benzene standard at 1910.1028.
vap	as vapors

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	ethylbenzene	mandelic acid, benzoylformic acid	crea	BEI®	0.15 g/g	ACGIH® 2023
US	toluene	toluene		BEI®	0.02 mg/l	ACGIH® 2023
US	toluene	toluene		BEI®	0.03 mg/l	ACGIH® 2023

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	toluene	o-cresol	hydr, crea	BEI®	0.3 mg/g	ACGIH® 2023
US	benzene	S-phenylmercapturic acid	crea	BEI®	25 µg/g	ACGIH® 2023
US	benzene	trans,trans-muconic acid	crea	BEI®	500 µg/g	ACGIH® 2023

Notation
crea creatinine
hydr hydrolysis

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Straight-run Kerosene	64741-44-2	DNEL	16.4 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Straight-run Kerosene	64741-44-2	DNEL	1,501 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Straight-run Kerosene	64741-44-2	DNEL	2.91 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	DNEL	27.3 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	DNEL	2,230 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	DNEL	2.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Distillates (petroleum), light hydrocracked	64741-77-1	DNEL	68.34 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Distillates (petroleum), light hydrocracked	64741-77-1	DNEL	4,288 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Distillates (petroleum), light hydrocracked	64741-77-1	DNEL	2.91 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	DNEL	0.6 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	DNEL	0.11 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
naphthalene	91-20-3	DNEL	25 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
naphthalene	91-20-3	DNEL	25 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
naphthalene	91-20-3	DNEL	3.57 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
cumene	98-82-8	DNEL	100 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
cumene	98-82-8	DNEL	250 mg/m³	human, inhalatory	worker (industry)	acute - local effects
cumene	98-82-8	DNEL	15.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-ethylhexan-1-ol	104-76-7	DNEL	12.8 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2-ethylhexan-1-ol	104-76-7	DNEL	53.2 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
2-ethylhexan-1-ol	104-76-7	DNEL	53.2 mg/m³	human, inhalatory	worker (industry)	acute - local effects
2-ethylhexan-1-ol	104-76-7	DNEL	23 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
toluene	108-88-3	DNEL	192 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
toluene	108-88-3	DNEL	384 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
toluene	108-88-3	DNEL	192 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
toluene	108-88-3	DNEL	384 mg/m³	human, inhalatory	worker (industry)	acute - local effects
toluene	108-88-3	DNEL	384 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethylbenzene	100-41-4	DNEL	77 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
ethylbenzene	100-41-4	DNEL	293 mg/m³	human, inhalatory	worker (industry)	acute - local effects
ethylbenzene	100-41-4	DNEL	180 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Tricarbonyl(methyl-cyclopentadienyl)manganese	12108-13-3	PNEC	0.21 µg/l	aquatic organisms	freshwater	short-term (single instance)
Tricarbonyl(methyl-cyclopentadienyl)manganese	12108-13-3	PNEC	0.021 µg/l	aquatic organisms	marine water	short-term (single instance)
Tricarbonyl(methyl-cyclopentadienyl)manganese	12108-13-3	PNEC	16 µg/kg	terrestrial organisms	soil	short-term (single instance)
cumene	98-82-8	PNEC	0.035 mg/l	aquatic organisms	freshwater	short-term (single instance)
cumene	98-82-8	PNEC	0.004 mg/l	aquatic organisms	marine water	short-term (single instance)
cumene	98-82-8	PNEC	200 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
cumene	98-82-8	PNEC	3.22 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
cumene	98-82-8	PNEC	0.322 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
cumene	98-82-8	PNEC	0.624 mg/kg	terrestrial organisms	soil	short-term (single instance)
2-ethylhexan-1-ol	104-76-7	PNEC	0.017 mg/l	aquatic organisms	freshwater	short-term (single instance)
2-ethylhexan-1-ol	104-76-7	PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single instance)
2-ethylhexan-1-ol	104-76-7	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
2-ethylhexan-1-ol	104-76-7	PNEC	0.284 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-ethylhexan-1-ol	104-76-7	PNEC	0.028 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-ethylhexan-1-ol	104-76-7	PNEC	0.047 mg/kg	terrestrial organisms	soil	short-term (single instance)
benzene	71-43-2	PNEC	80 µg/l	aquatic organisms	freshwater	short-term (single instance)
benzene	71-43-2	PNEC	8 µg/l	aquatic organisms	marine water	short-term (single instance)
benzene	71-43-2	PNEC	39 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
benzene	71-43-2	PNEC	1.36 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
benzene	71-43-2	PNEC	0.136 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
benzene	71-43-2	PNEC	0.225 mg/kg	terrestrial organisms	soil	short-term (single instance)
toluene	108-88-3	PNEC	0.68 mg/l	aquatic organisms	freshwater	short-term (single instance)
toluene	108-88-3	PNEC	0.68 mg/l	aquatic organisms	marine water	short-term (single instance)
toluene	108-88-3	PNEC	13.61 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
toluene	108-88-3	PNEC	16.39 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
toluene	108-88-3	PNEC	16.39 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
toluene	108-88-3	PNEC	2.89 mg/kg	terrestrial organisms	soil	short-term (single instance)
ethylbenzene	100-41-4	PNEC	0.1 mg/l	aquatic organisms	freshwater	short-term (single instance)
ethylbenzene	100-41-4	PNEC	0.01 mg/l	aquatic organisms	marine water	short-term (single instance)
ethylbenzene	100-41-4	PNEC	9.6 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
ethylbenzene	100-41-4	PNEC	13.7 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
ethylbenzene	100-41-4	PNEC	1.37 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
ethylbenzene	100-41-4	PNEC	2.68 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	not determined
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	38 °C
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	not determined
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2	**Other information**	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Toxic if inhaled.

GHS of the United Nations, annex 4: May be harmful if swallowed.

- Acute toxicity estimate (ATE)

Inhalation: gas	3,922 $^{ppmV}/_{4h}$
Inhalation: vapor	4.126 $^{mg}/_{l}/4h$

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Straight-run Kerosene	64741-44-2	inhalation: vapor	11 $^{mg}/_{l}$/4h
Straight-run Kerosene	64741-44-2	inhalation: dust/mist	>2.53 $^{mg}/_{l}$/4h
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	inhalation: vapor	11 $^{mg}/_{l}$/4h
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	inhalation: dust/mist	4.6 $^{mg}/_{l}$/4h
Jet A-1	8008-20-6	inhalation: vapor	>5.28 $^{mg}/_{l}$/4h
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	inhalation: vapor	11 $^{mg}/_{l}$/4h
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	inhalation: dust/mist	4.65 $^{mg}/_{l}$/4h
Kerosine (petroleum), hydrodesulfurized	64742-81-0	inhalation: vapor	>5.28 $^{mg}/_{l}$/4h
Distillates (petroleum), light hydrocracked	64741-77-1	inhalation: vapor	3.6 $^{mg}/_{l}$/4h
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	oral	51.8 $^{mg}/_{kg}$
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	dermal	140 $^{mg}/_{kg}$
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	inhalation: vapor	0.1235 $^{mg}/_{l}$/4h
naphthalene	91-20-3	oral	710 $^{mg}/_{kg}$
naphthalene	91-20-3	inhalation: vapor	>0.4 $^{mg}/_{l}$/4h
naphthalene	91-20-3	inhalation: dust/mist	0.005 $^{mg}/_{l}$/4h
2-ethylhexan-1-ol	104-76-7	inhalation: vapor	>0.89 $^{mg}/_{l}$/4h
toluene	108-88-3	inhalation: gas	7.6 $^{ppmV}/_{4h}$
ethylbenzene	100-41-4	inhalation: vapor	11 $^{mg}/_{l}$/4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Propylbenzene	98-82-8	2B	
benzene	71-43-2	1	
ethylbenzene	100-41-4	2B	
cumene	98-82-8	2B	
naphthalene	91-20-3	2B	
toluene	108-88-3	3	

Legend

1	Carcinogenic to humans
2B	Possibly carcinogenic to humans
3	Not classifiable as to carcinogenicity in humans

National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
benzene	71-43-2	Known to be a human carcinogen	1st Report on Carcinogens
cumene	98-82-8	Reasonably anticipated to be a human carcinogen	13th Report on Carcinogens
naphthalene	91-20-3	Reasonably anticipated to be a human carcinogen	11th Report on Carcinogens

29 CFR 1910/1915/1926 Occupational Safety and Health Standards: Toxic and Hazardous Substances (carcinogens)

Name of substance	CAS No	Type of registration
benzene	71-43-2	GI §1910.1028, SE §1915.1028, CI §1926.1128

Legend

CI §1926.1128	Construction Industry (29 CFR 1926.1128)
GI §1910.1028	General Industry (29 CFR 1910.1028)
SE §1915.1028	Shipyard Employment (29 CFR 1915.1028)

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Straight-run Kerosene	64741-44-2	LL50	>100 mg/l	fish	24 h
Straight-run Kerosene	64741-44-2	EL50	>1,000 mg/l	aquatic invertebrates	24 h
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	LL50	>100 mg/l	fish	24 h
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	EL50	>1,000 mg/l	aquatic invertebrates	24 h
Jet A-1	8008-20-6	LL50	5 mg/l	fish	96 h
Jet A-1	8008-20-6	EL50	1.4 mg/l	aquatic invertebrates	48 h
Jet A-1	8008-20-6	LOEL	1 mg/l	algae	72 h
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	LL50	>0.3 mg/l	fish	96 h
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	LC50	>0.21 mg/l	fish	96 h
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	EL50	0.32 mg/l	aquatic invertebrates	48 h
Kerosine (petroleum), hydrodesulfurized	64742-81-0	LL50	5 mg/l	fish	96 h
Kerosine (petroleum), hydrodesulfurized	64742-81-0	EL50	1.4 mg/l	aquatic invertebrates	48 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Kerosine (petroleum), hydrodesulfurized	64742-81-0	LOEL	1 $^{mg}/_{l}$	algae	72 h
Distillates (petroleum), light hydrocracked	64741-77-1	LL50	>100 $^{mg}/_{l}$	fish	24 h
Distillates (petroleum), light hydrocracked	64741-77-1	EL50	180 $^{mg}/_{l}$	aquatic invertebrates	24 h
Solvent naphtha (petroleum), light arom.	64742-95-6	LL50	8.2 $^{mg}/_{l}$	fish	96 h
Solvent naphtha (petroleum), light arom.	64742-95-6	EL50	4.5 $^{mg}/_{l}$	aquatic invertebrates	48 h
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	LC50	0.21 $^{mg}/_{l}$	fish	96 h
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	EC50	0.94 $^{mg}/_{l}$	aquatic invertebrates	24 h
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	ErC50	1.7 $^{mg}/_{l}$	algae	48 h
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	NOEC	0.29 $^{mg}/_{l}$	aquatic invertebrates	48 h
naphthalene	91-20-3	LC50	1.6 $^{mg}/_{l}$	fish	96 h
naphthalene	91-20-3	EC50	2.16 $^{mg}/_{l}$	aquatic invertebrates	48 h
cumene	98-82-8	LC50	4.7 $^{mg}/_{l}$	fish	96 h
cumene	98-82-8	EC50	2.14 $^{mg}/_{l}$	aquatic invertebrates	48 h
cumene	98-82-8	ErC50	2.01 $^{mg}/_{l}$	algae	72 h
cumene	98-82-8	NOEC	<2.9 $^{mg}/_{l}$	fish	96 h
Propylbenzene	103-65-1	LC50	1.55 $^{mg}/_{l}$	rainbow trout (Oncorhynchus mykiss)	96 h
Propylbenzene	103-65-1	EC50	2 $^{mg}/_{l}$	water flea (Daphnia)	24 h
2-ethylhexan-1-ol	104-76-7	LC50	17.1 $^{mg}/_{l}$	fish	96 h
2-ethylhexan-1-ol	104-76-7	EC50	39 $^{mg}/_{l}$	aquatic invertebrates	48 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-ethylhexan-1-ol	104-76-7	ErC50	16.6 mg/l	algae	72 h
2-ethylhexan-1-ol	104-76-7	NOEC	14 mg/l	fish	96 h
benzene	71-43-2	LC50	5.3 mg/l	fish	96 h
benzene	71-43-2	EC50	10 mg/l	aquatic invertebrates	24 h
benzene	71-43-2	ErC50	100 mg/l	algae	72 h
toluene	108-88-3	LC50	5.5 mg/l	fish	96 h
toluene	108-88-3	EC50	84 mg/l	microorganisms	24 h
ethylbenzene	100-41-4	LC50	7 mg/l	fish	24 h
ethylbenzene	100-41-4	EC50	2.4 mg/l	aquatic invertebrates	48 h
ethylbenzene	100-41-4	NOEC	3.3 mg/l	fish	96 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Straight-run Kerosene	64741-44-2	EL50	>1,000 mg/l	microorganisms	40 h
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	EL50	>1,000 mg/l	microorganisms	40 h
Jet A-1	8008-20-6	EL50	0.89 mg/l	aquatic invertebrates	21 d
Jet A-1	8008-20-6	LOEL	1.2 mg/l	aquatic invertebrates	21 d
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	EL50	0.22 mg/l	aquatic invertebrates	21 d
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	EC50	0.17 mg/l	aquatic invertebrates	21 d
Distillates (petroleum), hydrodesulfurized light catalytic cracked	68333-25-5	NOEC	0.038 mg/l	aquatic invertebrates	21 d
Kerosine (petroleum), hydrodesulfurized	64742-81-0	EL50	0.89 mg/l	aquatic invertebrates	21 d

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Kerosine (petroleum), hydrodesulfurized	64742-81-0	LOEL	1.2 mg/l	aquatic invertebrates	21 d
Distillates (petroleum), light hydrocracked	64741-77-1	EL50	>1,000 mg/l	microorganisms	40 h
Solvent naphtha (petroleum), light arom.	64742-95-6	EL50	10 mg/l	fish	21 d
Solvent naphtha (petroleum), light arom.	64742-95-6	EC50	15.41 mg/l	microorganisms	40 h
naphthalene	91-20-3	EC50	2.96 mg/l	algae	4 h
naphthalene	91-20-3	NOEC	0.37 mg/l	fish	40 d
naphthalene	91-20-3	LOEC	0.38 mg/l	fish	40 d
cumene	98-82-8	EC50	1.5 mg/l	aquatic invertebrates	21 d
cumene	98-82-8	LC50	>3 mg/l	aquatic invertebrates	21 d
cumene	98-82-8	NOEC	0.38 mg/l	fish	28 d
benzene	71-43-2	LOEC	1.6 mg/l	fish	32 d
benzene	71-43-2	NOEC	0.8 mg/l	fish	32 d
toluene	108-88-3	LC50	3.78 mg/l	aquatic invertebrates	2 d
toluene	108-88-3	EC50	3.23 mg/l	aquatic invertebrates	7 d
toluene	108-88-3	LOEC	2.77 mg/l	fish	40 d
toluene	108-88-3	NOEC	1.39 mg/l	fish	40 d
ethylbenzene	100-41-4	LC50	3.6 mg/l	aquatic invertebrates	7 d
ethylbenzene	100-41-4	LOEL	1.7 mg/l	aquatic invertebrates	7 d
ethylbenzene	100-41-4	NOEC	0.96 mg/l	aquatic invertebrates	7 d
ethylbenzene	100-41-4	LOEC	1.7 mg/l	aquatic invertebrates	7 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 1268
IMDG-Code	UN 1268
ICAO-TI	UN 1268

14.2 UN proper shipping name

DOT	Petroleum distillates, n.o.s.
IMDG-Code	PETROLEUM DISTILLATES, N.O.S.
ICAO-TI	Petroleum distillates, n.o.s.

14.3 Transport hazard class(es)

DOT	3

IMDG-Code	3
ICAO-TI	3

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment) Jet A-1

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

DOT

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN1268, Petroleum distillates, n.o.s., (contains: Straight-run Kerosene, Distillates (petroleum), hydrodesulfurized middle), 3, III, environmentally hazardous
Reportable quantity (RQ)	5,160 lbs (2,343 kg) (benzene) (xylene)
Danger label(s)	3, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	144, B1, IB3, T4, TP1, TP29
ERG No	128

International Maritime Dangerous Goods Code (IMDG) - Additional information

Particulars in the shipper's declaration	UN1268, PETROLEUM DISTILLATES, N.O.S., (contains: Straight-run Kerosene, Distillates (petroleum), hydrodesulfurized middle), 3, III, 38°C c.c., MARINE POLLUTANT
Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	3, fish and tree

Special provisions (SP)	223, 955
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-E
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Particulars in the shipper's declaration	UN1268, Petroleum distillates, n.o.s., (contains: Straight-run Kerosene, Distillates (petroleum), hydrodesulfurized middle), 3, III
Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	3

Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) — all ingredients are listed (ACTIVE) or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities

Name of substance	CAS No	Notes	Reportable quantity (pounds)	Threshold planning quantity (pounds)
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	d	100	100

Legend
d Revised TPQ based on new or re-evaluated toxicity data, April 22, 1987.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance	**CAS No**	**Remarks**	**Effective date**
Propylbenzene	98-82-8		1987-01-01
benzene	71-43-2		1987-01-01
ethylbenzene	100-41-4		1987-01-01
cumene	98-82-8		1987-01-01
naphthalene	91-20-3		1987-01-01
Tricarbonyl(methylcyclopentadienyl)manganese			1987-01-01
toluene	108-88-3		1987-01-01

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
benzene	71-43-2	a	1 2 3 4	10 (4,54)
ethylbenzene	100-41-4		1 2 3	1000 (454)
cumene	98-82-8		3 4	5000 (2270)
naphthalene	91-20-3		1 2 3 4	100 (45,4)
toluene	108-88-3		1 2 3 4	1000 (454)

Legend

1	"1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act
2	"2" indicates that the source is section 307(a) of the Clean Water Act
3	"3" indicates that the source is section 112 of the Clean Air Act
4	"4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)
a	Benzene was already a CERCLA hazardous substance prior to the CAA Amendments of 1990 and received an adjusted 10-pound RQ based on potential carcinogenicity in an August 14, 1989, final rule (54 FR 33418). The CAA Amendments specify that “benzene (including benzene from gasoline)” is a hazardous air pollutant and, thus, a CERCLA hazardous substance.

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
benzene	71-43-2	A, N, O, R, T, *	
Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	A	skin

Legend

*	Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
A	American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
N	National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
O	Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division
R	International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA
skin	If a potential for absorption from skin contact merits special consideration, the word "skin" follows the substance name.
T	National Toxicology Program (NTP) "Fifth Annual Report on Carcinogens," 1989 (NTP 89-239). Order information: (919) 541-3992

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

Name of substance	CAS No	Listed in	Special conditions	Excluded transactions	DEA - code	Concentration limit
toluene	108-88-3	List II chemicals	SC-6594	excl-trans-12	6594	35% by Weight or Volume

Legend

excl-trans-12	Excluded transactions: Domestic and import transactions in chemical mixtures that contain acetone, ethyl ether, 2-butanone, and/or toluene, unless regulated because of being formulated with other List I or List II chemical(s) above the concentration limit.
List II chemicals	The term “list II chemical” means a chemical (other than a list I chemical) specified by regulation of the Attorney General as a chemical that is used in manufacturing a controlled substance in violation of this subchapter.
SC-6594	Exports only; Limit applies to toluene or any combination of acetone, ethyl ether, 2-butanone, methyl isobutyl ketone, and toluene if present in the mixture by summing the concentrations for each chemical.

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AIIC	not all ingredients are listed
CA	DSL	not all ingredients are listed
CA	NDSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed

Country	Inventory	Status
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	not all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.