



Safety Data Sheet

bluechem 
GROUP

according to Regulation (EC) No 1907/2006

Octane Booster

Revision date: 16.08.2021

Product code: 1313

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

1.1. Product identifier

Octane Booster

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

Use of the substance/mixture

Increase the ROZ-octane number.

1.3. Details of the supplier of the safety data sheet

| | | |
|-----------------|---------------------------|--------------------------------|
| Company name: | CTP GmbH | |
| Street: | Saalfelder Strasse 35h | |
| Place: | D-07338 Leutenberg | |
| Telephone: | +49 (0)36734 230-0 | Telefax: +49 (0)36734 230-22 |
| e-mail: | msds@bluechemgroup.com | |
| Contact person: | Jens Moeller, Dipl.-Chem. | Telephone: +49 (0)36734 230-19 |
| Internet: | www.bluechemgroup.com | |

1.4. Emergency telephone number:

GBK GmbH: +49-(0)6132-84463 (24/7)

Further Information

Article Number: 33200, 33201, 33202, 33204, 33206

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Aspiration hazard: Asp. Tox. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if inhaled.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging the unborn child.

May cause respiratory irritation.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

xylene

toluene

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Signal word: Danger

Pictograms:



Hazard statements

| | |
|-------|--|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

| | |
|----------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe mist/vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P331 | Do NOT induce vomiting. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P405 | Store locked up. |
| P501 | Dispose of this material and its container to hazardous or special waste collection point. |

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H304-H332-H335-H336-H361d-H373-H412

Precautionary statements

P101-P102-P260-P271-P301+P310-P331-P405-P501

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Ignition improver

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Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|---|----------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | | | 40 - < 45 % |
| | 216-653-1 | | 01-2119452786-27 | |
| | Flam. Liq. 2, Skin Irrit. 2; H225 H315 | | | |
| 1330-20-7 | xylene | | | 35 - < 40 % |
| | 215-535-7 | | 01-2119488216-32 | |
| | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H226 H332 H312 H315 H319 H335 H373 H304 | | | |
| 108-88-3 | toluene | | | 20 - < 25 % |
| | 203-625-9 | | 01-2119471310-51 | |
| | Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H361d H315 H336 H373 H304 H412 | | | |
| | Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines) | | | 1 - < 5 % |
| | | | | |
| | Aquatic Chronic 2; H411 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|-----------|-----------|---|-------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 1634-04-4 | 216-653-1 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | 40 - < 45 % |
| | | inhalation: LC50 = 120,3-142 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg | |
| 1330-20-7 | 215-535-7 | xylene | 35 - < 40 % |
| | | inhalation: LC50 = 21,7 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 3200 mg/kg; oral: LD50 = 4300 mg/kg | |
| 108-88-3 | 203-625-9 | toluene | 20 - < 25 % |
| | | inhalation: LC50 = 49 mg/l (vapours); dermal: LD50 = 12200 mg/kg | |
| | | Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines) | 1 - < 5 % |
| | | dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg | |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Move victim to fresh air. Put victim at rest and keep warm.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

In case of difficulties of breathing consult physician.

If victim is at risk of losing consciousness, position and transport on their side.

After contact with skin

Take off immediately all contaminated clothing, including underwear and shoes .

After contact with skin, wash immediately with plenty of water and soap.

Rub greasy ointment into the skin.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

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Consult physician.

After ingestion

Let water be drunken in little sips (dilution effect). Consult physician.

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

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation of eyes: Irritant effect possible.

After ingestion: Harmful: may cause lung damage if swallowed.

Harmful by inhalation.

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

Warning about danger of aspiration.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Extinguishing powder. Sand. alcohol resistant foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Formation of decomposition products possible.

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Cool endangered container in case of fire.

Contaminated fire-fighting water must be collected separately.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

In case of fire: Wear self-contained breathing apparatus.

Keep away from sources of ignition - No smoking.

6.2. Environmental precautions

Beat down gas/vapours/mist with water spray.

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Prevent spreading of spillages (e.g. by oil barrier).

Wipe up with absorbent material (eg. cloth, fleece).

6.4. Reference to other sections

No data

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Closed devices. Vapours / aerosols must be extracted by suction immediately at point of origin.

Avoid contact with skin and eyes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Further information on storage conditions

Packaging materials: metal.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|-----------|-------------------------|-----|-------------------|---------------------|---------------|--------|
| 1634-04-4 | tert-Butyl-methyl ether | 50 | 183.5 | | TWA (8 h) | |
| | | 100 | 367 | | STEL (15 min) | |
| 108-88-3 | Toluene | 50 | 192 | | TWA (8 h) | |
| | | 100 | 384 | | STEL (15 min) | |
| 1330-20-7 | Xylene, mixed isomers | 50 | 221 | | TWA (8 h) | |
| | | 100 | 442 | | STEL (15 min) | |

Biological limit values

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|----------|-----------|-----------|-----------|---------------|---------------------------------|
| 108-88-3 | Toluene | Toluene | 0.02 mg/L | Blood | Prior to last shift of workweek |

8.2. Exposure controls

Protective and hygiene measures

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

Eye/face protection

Wear tightly sealed safety glasses against possible splashes into the eyes. (DIN EN 166)

Hand protection

Tested protective gloves are to be worn: Butyl rubber. (EN ISO 374)

Skin protection

Wear suitable solvent-proof protective clothing according to EN 465.

Respiratory protection

In case of accumulation of fumes/aerosols, provide adequate ventilation.

In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|----------|
| Physical state: | liquid |
| Colour: | colored |
| Odour: | aromatic |

Changes in the physical state

Flash point: -5 °C



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Lower explosion limits:

Upper explosion limits:

Density (at 20 °C):

0,815 g/cm³

Water solubility:
(at 20 °C)

insoluble

Solubility in other solvents

Organic solvents

9.2. Other information

No data

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No decomposition when used as intended.

10.3. Possibility of hazardous reactions

No dangerous reactions are known.

10.4. Conditions to avoid

Only use the material in places where open light, fire and other flammable sources can be kept away.

10.5. Incompatible materials

Oxidizing agents. acid, concentrated. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Carbon monoxide (CO)., Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (inhalation aerosol) 4,167 mg/l

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| CAS No | Chemical name | | | | |
|-----------|---|---------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | | | | |
| | oral | LD50 >2000 mg/kg | Rat | | |
| | dermal | LD50 >2000 mg/kg | Rat | | |
| | inhalation (4 h) vapour | LC50 120,3-142 mg/l | Rat | | |
| 1330-20-7 | xylene | | | | |
| | oral | LD50 4300 mg/kg | Rat | | |
| | dermal | LD50 3200 mg/kg | Rabbit | | |
| | inhalation (4 h) vapour | LC50 21,7 mg/l | Rat | | |
| | inhalation aerosol | ATE 1,5 mg/l | | | |
| 108-88-3 | toluene | | | | |
| | dermal | LD50 12200 mg/kg | Rabbit | GESTIS | |
| | inhalation (4 h) vapour | LC50 49 mg/l | Rat | GESTIS | |
| | Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines) | | | | |
| | oral | LD50 >5000 mg/kg | Rat | | |
| | dermal | LD50 >2000 mg/kg | Rabbit | | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (xylene)

May cause drowsiness or dizziness. (toluene)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (xylene; toluene)

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience

Other observations

No information available.

SECTION 12: Ecological information

12.1. Toxicity

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| CAS No | Chemical name | | | | | |
|-----------|---|-------------------|-----------|---------------------|--------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | | | | | |
| | Acute fish toxicity | LC50 706 mg/l | 96 h | Pimephales promelas | | |
| | Acute algae toxicity | ErC50 >800 mg/l | 72 h | Algae | | |
| | Acute crustacea toxicity | EC50 651 mg/l | 48 h | Daphnia magna | | |
| 1330-20-7 | xylene | | | | | |
| | Acute fish toxicity | LC50 26,7 mg/l | 96 h | Pimephales promelas | | |
| 108-88-3 | toluene | | | | | |
| | Acute fish toxicity | LC50 13 mg/l | 96 h | Carassius auratus | IUCLID | |
| | Acute algae toxicity | ErC50 12,5 mg/l | 72 h | | GESTIS | |
| | Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines) | | | | | |
| | Acute fish toxicity | LC50 1-10 mg/l | 96 h | Fish | | |
| | Acute algae toxicity | ErC50 10-100 mg/l | 72 h | Algae | | |

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Swims on the water.

Low potential of bio-accumulation.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---------------|---------|
| 108-88-3 | toluene | 2,73 |

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not dispose with household waste.

Do not allow to enter into surface water or drains.

Have to add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Arrange about the exact waste code with the local waste disposal expert.

Contaminated packaging

Contaminated packing must be completely emptied and can be re-used following appropriate cleaning.

Do not pierce, cut up or weld unclean container. (Explosion hazard.)

SECTION 14: Transport information

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Land transport (ADR/RID)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S.
 (xylene, toluene, MtBe)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3

Classification code: F1
 Special Provisions: 274 601 640D
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E



Inland waterways transport (ADN)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S.
 (xylene, toluene, MtBe)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3

Classification code: F1
 Special Provisions: 274 601 640D
 Limited quantity: 1 L
 Excepted quantity: E2



Marine transport (IMDG)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S.
 (xylene, toluene, MtBe)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3

Marine pollutant: -
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-E



Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1993

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14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S.
(xylene, toluene, MtBe)

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Special Provisions: A3
Limited quantity Passenger: 1 L
Passenger LQ: Y341
Excepted quantity: E2

| | |
|--|------|
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No information available.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 48

Additional information

Contains:

> 30 % hydrocarbons, aromatic.

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE

xylene

toluene

SECTION 16: Other information



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Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data |
| Acute Tox. 4; H332 | Calculation method |
| Asp. Tox. 1; H304 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Repr. 2; H361d | Calculation method |
| STOT SE 3; H335 | Calculation method |
| STOT SE 3; H336 | Calculation method |
| STOT RE 2; H373 | Calculation method |
| Aquatic Chronic 3; H412 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|-------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| 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. |
| H412 | Harmful to aquatic life with long lasting effects. |

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)