# Putoline Octane Booster

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 25-10-2019 Revision date: 30-7-2021 Supersedes version of: 24-7-2020 Version: 1.2

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

### 1.1. Product identifier

| | | |
|---|---|---|
| Product form | : | Mixture |
| Trade name | : | Putoline Octane Booster |
| UFI | : | CM60-J0K4-V000-M45X |
| Product code | : | PW.40.18 |
| Type of product | : | Additive |
| Product group | : | Trade product |

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

#### 1.2.1. Relevant identified uses

Intended for general public

| | | |
|---|---|---|
| Main use category | : | Industrial use,Professional use,Consumer use |
| Use of the substance/mixture | : | Fuel additive |

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

Putoline Oil
Dollegoorweg 15
7602 EC Almelo - Netherlands
T 0031 (0)546 81 81 65
vib@putoline.com

### 1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|---|---|---|---|---|
| Ireland | National Poisons Information Centre<br>Beaumont Hospital | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566 (Healthcare professionals-24/7)<br>+353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| United Kingdom | National Poisons Information Service (Cardiff Centre)<br>Gwenwyn Ward, Llandough Hospital | Penarth<br>CF64 2XX Cardiff | 0344 892 0111 | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| | |
|---|---|
| Aspiration hazard, Category 1 | H304 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 3 | H412 |

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Harmful if inhaled. May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :

GHS08

Signal word (CLP) : Danger

Contains : Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1%

Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P273 - Avoid release to the environment.
P301+P310+P331 - IF SWALLOWED: Immediately call a doctor. Do NOT induce vomiting.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1% | (CAS-No.) 1174522-09-8<br>(EC-No.) 918-481-9<br>(REACH-no) 01-2119457273-39 | ≥ 50 | Asp. Tox. 1, H304 |
| Tricarbonyl(methylcyclopentadienyl)manganese | (CAS-No.) 12108-13-3<br>(EC-No.) 235-166-5<br>(REACH-no) 01-2119495971-23 | < 2,5 | Acute Tox. 3 (Oral), H301<br>Acute Tox. 2 (Dermal), H310<br>Acute Tox. 2 (Inhalation:dust,mist), H330<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after ingestion : Risk of lung oedema.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.
Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
Storage temperature : < 40 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**
Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment symbol(s):**

##### 8.2.2.1. Eye and face protection

| **Eye protection:** | | | |
|---|---|---|---|
| Safety glasses | | | |
| **Type** | **Field of application** | **Characteristics** | **Standard** |
| Safety glasses | Droplet | clear | EN 166 |

##### 8.2.2.2. Skin protection

| **Skin and body protection:** |
|---|
| Wear suitable protective clothing |

| **Hand protection:** | | | | | |
|---|---|---|---|---|---|
| Protective gloves | | | | | |
| **Type** | **Material** | **Permeation** | **Thickness (mm)** | **Penetration** | **Standard** |
| Reusable gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | ≥ 0.35 | | EN ISO 374 |

##### 8.2.2.3. Respiratory protection

| **Respiratory protection:** |
| --- |
| [In case of inadequate ventilation] wear respiratory protection. |

**8.2.2.4. Thermal hazards**
No additional information available

### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**
Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
| --- | --- | --- |
| Physical state | : | Liquid |
| Colour | : | amber. |
| Odour | : | characteristic. |
| Odour threshold | : | No data available |
| pH | : | No data available |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | > 160 °C |
| Flash point | : | > 62 °C |
| Critical temperature | : | > 200 °C |
| Auto-ignition temperature | : | > 200 °C |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Vapour pressure | : | 100 Pa @20°C |
| Relative vapour density at 20 °C | : | No data available |
| Relative density | : | No data available |
| Density | : | 0,776 g/cm³ @20°C |
| Solubility | : | Water: Insoluble / Slightly miscible |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Viscosity, kinematic | : | < 20,5 mm²/s at 40 °C |
| Viscosity, dynamic | : | No data available |
| Explosive properties | : | No data available |
| Oxidising properties | : | No data available |
| Lower explosive limit (LEL) | : | 0,6 vol % |
| Upper explosive limit (UEL) | : | 7 vol % |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Reacts violently with (strong) oxidizers.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified.

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1% (1174522-09-8) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg (OESO 401) |
| LD50 dermal rabbit | > 3160 mg/kg (OESO 402) |
| LC50 Inhalation - Rat | > 4,951 g/m³ (4h, OESO 403) |

| Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3) | |
|---|---|
| LD50 oral rat | 51,8 mg/kg bodyweight |
| LD50 dermal rabbit | 140 mg/kg bodyweight |
| LC50 Inhalation - Rat (Vapours) | 0,076 mg/l/4h |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

| Putoline Octane Booster | |
|---|---|
| Viscosity, kinematic | < 20,5 mm²/s at 40 °C |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.
Not rapidly degradable

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1% (1174522-09-8) | |
|---|---|
| LC50 - Fish [1] | > 1001 mg/l (OECD 203 method) |
| EC50 - Crustacea [1] | > 1000 mg/l (OECD 202 method) |
| EC50 72h - Algae [1] | W 1000 mg/l (OECD 201 method) |
| ErC50 algae | 1000 mg/l (Pseudokirhneriella subcapitata, EL0, 72h) |

| Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3) | |
|---|---|
| LC50 - Fish [1] | 0,21 mg/l |
| EC50 - Crustacea [1] | 0,83 mg/l |
| EC50 96h - Algae [1] | > 0,46 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |

### 12.2. Persistence and degradability

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1% (1174522-09-8) | |
|---|---|
| Persistence and degradability | Readily biodegradable. |
| Biodegradation | 80 % (28d) |

| Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3) | |
|---|---|
| Biodegradation | 60 % (14 days) |

### 12.3. Bioaccumulative potential

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, benzene <0,1% (1174522-09-8) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 5,57 – 6,62 |

| Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 3,4 (26°C ; pH 6) |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.1. UN number** | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.2. UN proper shipping name** | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.3. Transport hazard class(es)** | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.4. Packing group** | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.5. Environmental hazards** | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | | |

### 14.6. Special precautions for user

**Overland transport**
Not regulated

**Transport by sea**
Not regulated

**Air transport**
Not regulated

**Inland waterway transport**
Not regulated

**Rail transport**
Not regulated

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Child-resistant fastening : Applicable
Tactile warning : Applicable

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

| Indication of changes: | | | |
|---|---|---|---|
| **Section** | **Changed item** | **Change** | **Comments** |
| 3 | Composition/information on ingredients | Modified | |
| 5.2 | Fire hazard | Added | |
| 7.2 | Storage temperature | Modified | |
| 9.1 | Auto-ignition temperature | Added | |
| 10.3 | Possibility of hazardous reactions | Modified | |
| 11.1 | Reason for no classification | Added | |
| 16 | Abbreviations and acronyms | Modified | |

| Abbreviations and acronyms: | |
|---|---|
| BCF | Bioconcentration factor |
| IARC | International Agency for Research on Cancer |
| OECD | Organisation for Economic Co-operation and Development |
| STP | Sewage treatment plant |
| TLM | Median Tolerance Limit |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |

| | |
|---|---|
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| ThOD | Theoretical oxygen demand (ThOD) |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

| **Full text of H- and EUH-statements:** | |
|---|---|
| Acute Tox. 2 (Dermal) | Acute toxicity (dermal), Category 2 |
| Acute Tox. 2 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 2 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| EUH066 | |
| H301 | Toxic if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H310 | Fatal in contact with skin. |
| H330 | Fatal if inhaled. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.