

Reformate

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GUNVOR-19

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

1.1. Product identifier

Product form : Substance
Trade name : Reformate

Chemical name : Naphtha (petroleum), catalytic reformed

EC-No. : 273-271-8 CAS-No. : 68955-35-1

REACH registration No : 01-2119485927-18-xxxx

Synonyms : Light Reformate, Heavy Reformate, Reformat, Platformat Combine, Reformat, / Platformat,

Reformaat, LPF (Light Powerformate), HPF (Heavy Powerformate)

Document no. : GUNVOR-19

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use

Use of the substance/mixture : Fuels

Fuel blendstock

Petrochemical feedstock

Further information: see exposure scenarios attached to this safety data sheet.

(Restricted to professional users

except for fuel uses)

#### 1.2.2. Uses advised against

No additional information available

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

Supplier Agent:

Gunvor SA Gunvor Services AS Rue de Rhone 80-84 Tornimäe 5

1204 Geneva - Switzerland 10145 Tallinn - Estonia

T+3726110415

msds@gunvorgroup.com

#### 1.4. Emergency telephone number

Emergency number : +32 3 575 11 30

This telephone number is available 24 hours per day, 7 days per week.

| Country | Official advisory body                                | Address                                  | Emergency number   |
|---------|---|--|--|
| Ireland | National Poisons Information Centre Beaumont Hospital | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566<br>(Healthcare professionals-<br>24/7)<br>+353 1 809 2166 (public,<br>8am - 10pm, 7/7) |

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

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

Flam. Liq. 2 H225



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 Skin Irrit. 2
 H315

 Muta. 1B
 H340

 Carc. 1B
 H350

 Repr. 2
 H361fd

 STOT SE 3
 H336

 Asp. Tox. 1
 H304

 Aquatic Chronic 2
 H411

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

#### 2.2. Label elements

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

Hazard pictograms (CLP)









Signal word

: Danger

Hazard statements (CLP) : H22

: H225 - Highly flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

 $\ensuremath{\mathsf{H336}}$  - May cause drowsiness or dizziness.

H340 - May cause genetic defects.

H350 - May cause cancer.

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

 $\ensuremath{\mathsf{H411}}$  - Toxic to a quatic life with long lasting effects.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor. Do

NOT induce vomiting.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P391 - Collect spillage.

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents and container to an approved waste disposal plant.

#### 2.3. Other hazards

Other hazards : Vapours can form explosive mixtures with air.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605



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## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

 Substance name
 : Reformate

 CAS-No.
 : 68955-35-1

 EC-No.
 : 273-271-8

| Substance name                          | Product identifier  | %     | Classification according to<br>Regulation (EC) No.<br>1272/2008 [CLP]  |
|---|---|-------|--|
| Naphtha (petroleum), catalytic reformed | (CAS-No.) 68955-35-1<br>(EC-No.) 273-271-8<br>(EC Index) 649-308-00-2<br>(REACH-no) 01-2119485927-18-xxxx | ≤ 100 | Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361fd STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |
| Toluene                                 | (CAS-No.) 108-88-3<br>(EC-No.) 203-625-9<br>(EC Index) 601-021-00-3                                       | ≤ 30  | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304  |
| n-Hexane                                | (CAS-No.) 110-54-3<br>(EC-No.) 203-777-6<br>(EC Index) 601-037-00-0                                       | ≤ 10  | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361f STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411                |
| benzene                                 | (CAS-No.) 71-43-2<br>(EC-No.) 200-753-7<br>(EC Index) 601-020-00-8  | ≤8    | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Muta. 1B, H340<br>Carc. 1A, H350<br>STOT RE 1, H372<br>Asp. Tox. 1, H304    |

### **Specific concentration limits:**

| Substance name | Product identifier  | Specific concentration limits |
|----------------|---|-------------------------------|
| n-Hexane       | (CAS-No.) 110-54-3<br>(EC-No.) 203-777-6<br>(EC Index) 601-037-00-0 | ( 5 ≤C < 100) STOT RE 2, H373 |

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

### 3.2. Mixtures

Not applicable

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

Additional advice

: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Treat symptomatically. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : Remove casualty to fresh air and keep warm and at rest. Give oxygen or artificial respiration

if necessary. Get medical advice/attention.



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Skin contact : Wash with plenty of soap and water. In case of doubt or persistent symptoms, consult

always a physician. Remove contaminated clothing and wash it before reuse.

Eyes contact : Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses,

if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult

always a physician.

Ingestion : Rinse mouth thoroughly with water. Do NOT induce vomiting. Get immediate medical

advice/attention.

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

Inhalation : May cause drowsiness or dizziness. Vapours may cause drowsiness and dizziness. The

following symptoms may occur: Cough. Mental confusion. Headache.

Skin contact : Causes skin irritation. The following symptoms may occur: erythema (redness).

Eyes contact : Contact with eyes may cause irritation. The following symptoms may occur: erythema

(redness).

Ingestion : May be fatal if swallowed and enters airways. The following symptoms may occur: Central

nervous system depression.

Chronic symptoms : May damage the unborn child. Suspected of damaging fertility. May cause cancer. May

cause genetic defects.

### 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. Alcohol resistant foam. dry extinguishing powder. Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

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

Specific hazards : Highly flammable liquid and vapour. Heating will cause a rise in pressure with a risk of

bursting. Vapours may form explosive mixture with air. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.

Hazardous decomposition products in case of

fire

: Carbon oxides (CO, CO2). Organic compounds. as appropriate : Hydrogen sulfide (H2S).

Sulphur oxides. sulphuric acid.

## 5.3. Advice for firefighters

Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Contain the

extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.

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

breathing apparatus.

Other information : Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in

accordance with environmental legislation.



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## **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

For non-emergency personnel

: Evacuate personnel to a safe area. Stay upwind/keep distance from source. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapour/aerosol. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed. Use explosion-proof equipment. Use only non-sparking tools. As appropriate: Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.

#### 6.1.2. For emergency responders

For emergency responders

: Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8 .

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up

: Cover the spilled liquid product with foam to slow down evaporation. Stop leak if safe to do so. Clean-up methods - small spillage: Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone, Collect in closed and suitable containers for disposal. Clean-up methods - large spillage: Cover the spilled liquid product with foam to slow down evaporation, Dam up, Recover large spills by pumping (use an explosion proof or hand pump), Keep in suitable, closed containers for disposal. Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases. Dispose of waste product or used containers according to local regulations.

#### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

### **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Precautions for safe handling

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapour/aerosol. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Use explosion-proof equipment. Use only non-sparking tools. Take any precaution to avoid mixing with combustibles... See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains. as appropriate. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.

Hygiene measures

: Keep good industrial hygiene. Wash hands immediately after handling the product. Remove contaminated clothing and shoes. When using do not eat, drink or smoke. Separate working clothes from town clothes. Keep away from food, drink and animal feedingstuffs. Wash contaminated clothing before reuse.



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

Technical measures

: Storage of flammable liquids. Store in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Open valve slowly to avoid pressure shock. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity. Protect from sunlight. Bund storage facilities to prevent soil and water pollution in the event of spillage. As appropriate: Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.

Packaging materials

: Keep only in the original container. Suitable material: Mild steel, Stainless steel. Unsuitable material: Synthetic material.

### 7.3. Specific end use(s)

see attached exposure scenario.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

| Naphtha (petroleum), catalytic reformed (68955-35-1) |  |  |
|--|--|--|
| DNEL/DMEL (workers)                                  |  |  |
| Acute - systemic effects, inhalation                 | (15min) 1300 mg/m³   |  |
| Acute - local effects, inhalation                    | (15min) 1100 mg/m³   |  |
| Long-term - local effects, inhalation                | (8h) 840 mg/m³   |  |
| DNEL/DMEL (general population)                       |  |  |
| Acute - systemic effects, inhalation                 | (15min) 1200 mg/m³   |  |
| Acute - local effects, inhalation                    | (15min) 640 mg/m³  |  |
| Long-term - local effects, inhalation                | (24h) 180 mg/m³  |  |
| PNEC (additional information)                        |  |  |
| Additional information                               | Substance of unknown or variable composition, complex reaction products or biological material (UVCB). No data available |  |

## 8.2. Exposure controls

Engineering measure(s)

: Provide adequate ventilation. See Section 7 for information on safe handling. Use only outdoors or in a well-ventilated area. Store locked up. Handle substance within a closed system. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Personal protective equipment

: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.



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Hand protection : Wear chemically resistant gloves (tested to EN374) . Suitable material: NBR (Nitrile rubber).

Thickness > 0,3 mm. Breakthrough time : > 480 minutes. The quality of the protective gloves

resistant to chemicals must be chosen as a function of the specific working place

concentration and quantity of hazardous substances.

Eye protection : Use suitable eye protection (EN 166). goggles

Body protection : Wear suitable coveralls to prevent exposure to the skin. Use chemically protective clothing.

Antistatic clothing. In case of large spillages: Wear full chemical protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Filter type: ABEK (EN

141). Half-face mask (DIN EN 140). full face mask (DIN EN 136). Self-contained open-circuit compressed air breathing apparatus (EN 137). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing

apparatus must be used.

Thermal hazard protection : Not required for normal conditions of use. Use dedicated equipment.

## **SECTION 9: Physical and chemical properties**

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

Physical state : Liquid
Appearance : liquid.
Colour : Colourless.

Odour : petroleum hydrocarbon odour.

Odour threshold : No data available

No data available
: Not applicable

Relative evaporation rate (butylacetate=1) : No data available

Melting / freezing point : < -20 °C

Freezing point : No data available

: > 35 °C Initial boiling point and boiling range Flash point : < 23 °C : 280 - 470 °C Auto-ignition temperature Decomposition temperature : No data available Flammability : Not applicable, liquid : 4 - 40 kPa (37,8 °C) Vapour pressure Vapour pressure at 50°C : 5 - 70 kPa (50 °C) Vapour density : No data available : 0,62 - 0,88 (15°C) Relative density

Solubility : No additional information available.

Water: No data available

Partition coefficient n-octanol/water : No data available

Kinematic viscosity : < 1 mm²/s (37,8°C)

Dynamic viscosity : No data available

Explosive properties : Not applicable. The study does not need to be conducted because there are no chemical

groups associated with explosive properties present in the molecule.



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Oxidising properties : Not applicable. The classification procedure needs not to be applied because there are

no chemical groups present in the molecule which are associated with oxidising

properties.

: Not applicable

**Explosive limits** : No data available : Not applicable Particle size Particle size distribution : Not applicable Particle shape : Not applicable Particle aspect ratio : Not applicable Particle aggregation state : Not applicable Particle agglomeration state : Not applicable Particle specific surface area : Not applicable

### 9.2. Other information

Particle dustiness

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Highly flammable liquid and vapour. Reference to other sections 10.4 & 10.5.

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

#### 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. See Section 7 for information on safe handling.

### 10.5. Incompatible materials

oxidising substances. See Section 7 for information on safe handling.

#### 10.6. Hazardous decomposition products

Burning produces noxious and toxic fumes. Reference to other sections 5.2.

## **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

| Naphtha (petroleum), catalytic reformed (68955-35-1) |              |  |
|--|--------------|--|
| LD50/oral/rat  | > 5000 mg/kg |  |
| LD50/dermal/rabbit                                   | > 2000 mg/kg |  |



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| Naphtha (petroleum), catalytic reformed (68955-35-1) |   |  |
|--|---|--|
| LC50/inhalation/4h/rat                               | > 5610 mg/m³  |  |
| benzene (71-43-2)                                    |   |  |
| LD50/oral/rat  | > 2000 mg/kg  |  |
| LD50/dermal/rabbit                                   | > 8200 mg/kg  |  |
| LC50/inhalation/4h/rat                               | 44,66 mg/l/4h   |  |
| n-Hexane (110-54-3)                                  |   |  |
| LD50/oral/rat  | 25 g/kg   |  |
| LD50/dermal/rabbit                                   | 3000 mg/kg  |  |
| LC50/inhalation/4h/rat (ppm)                         | 48000 ppm/4h  |  |
| Toluene (108-88-3)                                   |   |  |
| LD50/oral/rat  | 2600 mg/kg  |  |
| LD50/dermal/rabbit                                   | 12000 mg/kg   |  |
| LC50/inhalation/4h/rat                               | 12,5 mg/l/4h  |  |
| Skin corrosion/irritation                            | : Causes skin irritation.   |  |
|  | pH: Not applicable  |  |
| Serious eye damage/irritation                        | : Not classified (Based on available data, the classification criteria are not met) |  |
|  | pH: Not applicable  |  |
| Respiratory or skin sensitisation                    | : Not classified (Based on available data, the classification criteria are not met) |  |
| Germ cell mutagenicity                               | : May cause genetic defects.  |  |
|  | Benzene   |  |
| Carcinogenicity                                      | : May cause cancer.   |  |
|  | Benzene   |  |
| Reproductive toxicity                                | : Suspected of damaging fertility. Suspected of damaging the unborn child.          |  |
|  | n-Hexane  |  |
|  | Toluene   |  |
|  |   |  |

| Naphtha (petroleum), catalytic reformed (68955-35-1) |                       |  |
|--|-----------------------|--|
| NOAEL, Dermal, systemic                              | 5 ml/kg (28 days)     |  |
| NOAEC, Inhalation, systemic                          | 2050 ppm (28 days)    |  |
| NOAEC, Inhalation, systemic                          | 20000 mg/m³ (90 days) |  |
| NOAEC, Inhalation, local                             | 10000 mg/m³ (90 days) |  |
| NOAEC, Chronic, Inhalation, systemic                 | 292 ppm               |  |

: May cause drowsiness or dizziness.

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

| Reformate (68955-35-1)            |                    |  |
|-----------------------------------|--------------------|--|
| Kinematic viscosity               | < 1 mm²/s (37,8°C) |  |
| Human evidence for classification | Yes                |  |

Other adverse effects

STOT-single exposure

STOT-repeated exposure

: Suspected of damaging fertility. Suspected of damaging the unborn child. May cause cancer.

May cause genetic defects.

Other information

: Symptoms related to the physical, chemical and toxicological characteristics. For further

: Not classified (Based on available data, the classification criteria are not met)

information see section 4.



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### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: Contains no substances identified as having endocrine disrupting properties (Article 59(1) of REACH - criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605)

#### 11.2.2 Other information

Other adverse effects

: Suspected of damaging fertility. Suspected of damaging the unborn child, May cause

cancer, May cause genetic defects. Other information

: Symptoms related to the physical, chemical and toxicological characteristics, For further

information see section 4

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

**Environmental properties** : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-

term (acute)

EC50 - Crustacea [2]

: Not classified

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

| (chronic)  |  |  |
|--|--|--|
| Naphtha (petroleum), catalytic reformed (68955-35-1) |  |  |
| LC50 - Fish [1]                                      | 10 mg/l (96h)  |  |
| LC50 - Fish [2]                                      | 8,2 mg/l (96h)   |  |
| EC50 - Crustacea [1]                                 | 4,5 mg/l (48h)   |  |
| EC50 72h - Algae [1]                                 | 11 mg/l (Species: Pseudokirchneriella subcapitata)                                     |  |
| ErC50 algae  | 3,1 mg/l (72h)   |  |
| benzene (71-43-2)                                    |  |  |
| LC50 - Fish [1]                                      | 10,7 – 14,7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])   |  |
| LC50 - Fish [2]                                      | 5,3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])           |  |
| EC50 - Crustacea [1]                                 | 8,76 – 15,6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])               |  |
| EC50 - Crustacea [2]                                 | 10 mg/l (Exposure time: 48 h - Species: Daphnia magna)                                 |  |
| EC50 72h - Algae [1]                                 | 29 mg/l (Species: Pseudokirchneriella subcapitata)                                     |  |
| n-Hexane (110-54-3)                                  |  |  |
| LC50 - Fish [1]                                      | 2,1 – 2,98 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])    |  |
| Toluene (108-88-3)                                   |  |  |
| LC50 - Fish [1]                                      | 15,22 – 19,05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |  |
| LC50 - Fish [2]                                      | 12,6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])                |  |
| EC50 - Crustacea [1]                                 | 5,46 – 9,83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])               |  |

11,5 mg/l (Exposure time: 48 h - Species: Daphnia magna)



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| EC50 72h - Algae [1] | 12,5 mg/l (Species: Pseudokirchneriella subcapitata [static]) |
|----------------------|---|
| EC50 96h - Algae [1] | > 433 mg/l (Species: Pseudokirchneriella subcapitata)         |

## 12.2. Persistence and degradability

| Reformate (68955-35-1)        |  |  |
|-------------------------------|--|--|
| Persistence and degradability | Not applicable. Substance is complex UVCB. |  |

### 12.3. Bioaccumulative potential

|   | Reformate (68955-35-1)    |  |
|---|---------------------------|--|
| Partition coefficient n-octanol/water No data available |                           | No data available                          |
|   | Bioaccumulative potential | Not applicable. Substance is complex UVCB. |

| Naphtha (petroleum), catalytic reformed (68955-35-1) |                                |
|--|--------------------------------|
| Partition coefficient n-octanol/water                | Justification for data waiving |

| benzene (71-43-2)                     |           |
|---------------------------------------|-----------|
| BCF - Fish [1]                        | 3,5 – 4,4 |
| Partition coefficient n-octanol/water | 2,1       |

| n-Hexane (110-54-3)                   |                       |
|---------------------------------------|-----------------------|
| Partition coefficient n-octanol/water | 4 (at 20 °C (at pH 7) |

| Toluene (108-88-3)                    |                          |
|---------------------------------------|--------------------------|
| Partition coefficient n-octanol/water | 2,73 (at 20 °C (at pH 7) |

### 12.4. Mobility in soil

| Reformate (68955-35-1) |   |
|------------------------|---|
| Ecology - soil         | No data available. Substance is complex UVCB. |

| Naphtha (petroleum), catalytic reformed (68955-35-1) |                                |
|--|--------------------------------|
| Surface tension                                      | Justification for data waiving |

## 12.5. Results of PBT and vPvB assessment

| Reformate (68955-35-1)    |   |
|---------------------------|---|
| Results of PBT assessment | Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII |

## 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: Contains no substances identified as having endocrine disrupting properties (Article 59(1) of REACH - criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605)



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## 12.7. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

## Waste treatment methods

Product/Packaging disposal recommendations : Handle with care. See Section 7 for information on safe handling. Handling and storage. Refer to manufacturer/supplier for information on recovery/recycling. Collect and dispose of waste product at an authorised disposal facility. Do not allow to enter into surface water or drains. Dispose of empty containers and wastes safely. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations.

Additional information

: Do not burn, or use a cutting torch on, the empty drum. Do not puncture or incinerate. Delivery to an approved waste disposal company. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)

: This material and its container must be disposed of as hazardous waste

Waste codes should be assigned by the user based on the application for which the product

was used.

The following Waste Codes are only suggestions:

13 07 02\*

150110\* - packaging containing residues of or contaminated by dangerous substances

### **SECTION 14: Transport information**

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

| ADR                         | IMDG                                   | IATA                                   | ADN                         | RID                         |  |
|-----------------------------|--|--|-----------------------------|-----------------------------|--|
| 14.1. UN number or ID       | 14.1. UN number or ID number           |  |                             |                             |  |
| 1268                        | 1268                                   | 1268                                   | 1268                        | 1268                        |  |
| 14.2. UN proper shipping    | ng name                                |  |                             |                             |  |
| PETROLEUM DISTILLATES,      | PETROLEUM DISTILLATES,                 | Petroleum distillates,                 | PETROLEUM DISTILLATES,      | PETROLEUM DISTILLATES,      |  |
| N.O.S. (Naphtha             | N.O.S. (Naphtha                        | n.o.s. (Naphtha                        | N.O.S. (Naphtha             | N.O.S. (Naphtha             |  |
| (petroleum), catalytic      | (petroleum), catalytic                 | (petroleum), catalytic                 | (petroleum), catalytic      | (petroleum), catalytic      |  |
| reformed)                   | reformed)                              | reformed)                              | reformed)                   | reformed)                   |  |
| Transport document descri   | ption                                  |  |                             |                             |  |
| UN 1268 PETROLEUM           | UN 1268 PETROLEUM                      | UN 1268 Petroleum                      | UN 1268 PETROLEUM           | UN 1268 PETROLEUM           |  |
| DISTILLATES, N.O.S.         | DISTILLATES, N.O.S.                    | distillates, n.o.s. (Naphtha           | DISTILLATES, N.O.S.         | DISTILLATES, N.O.S.         |  |
| (Naphtha (petroleum),       | (Naphtha (petroleum),                  | (petroleum), catalytic                 | (Naphtha (petroleum),       | (Naphtha (petroleum),       |  |
| catalytic reformed), 3, II, | catalytic reformed), 3, II,            | reformed), 3, II,                      | catalytic reformed), 3, II, | catalytic reformed), 3, II, |  |
| (D/E),                      | MARINE                                 | ENVIRONMENTALLY                        | ENVIRONMENTALLY             | ENVIRONMENTALLY             |  |
| ENVIRONMENTALLY             | POLLUTANT/ENVIRONME                    | HAZARDOUS                              | HAZARDOUS                   | HAZARDOUS                   |  |
| HAZARDOUS                   | NTALLY HAZARDOUS                       |  |                             |                             |  |
|                             |  |  |                             |                             |  |
| 14.3. Transport hazard      | class(es)                              |  |                             |                             |  |
| 3                           | 3                                      | 3                                      | 3                           | 3                           |  |
| <b>1 1 1 1 1 1 1 1 1 1</b>  | ************************************** | ************************************** |                             | ₩ <u></u> 3                 |  |
| 14.4. Packing group         |  |  |                             |                             |  |
| II                          | II                                     | II                                     | II                          | II                          |  |
|                             |  |  |                             |                             |  |



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| ADR                                 | IMDG   | IATA                                | ADN                                 | RID                                 |  |
|-------------------------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|--|
| 14.5. Environmental                 | 14.5. Environmental hazards                                |                                     |                                     |                                     |  |
| Dangerous for the environment : Yes | Dangerous for the environment : Yes Marine pollutant : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes |  |
|                                     |  | ADN : N2.                           | •                                   |                                     |  |

#### 14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Classification code (ADR) : F1

Special provisions : 640D, 664

Limited quantities (ADR) : 1I Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container : T7

instructions (ADR)

Portable tank and bulk container special

provisions (ADR)

TP1, TP8, TP28

Tank code (ADR) : LGBF

Vehicle for tank carriage : FL

Transport category (ADR) : 2

Special provisions for carriage - Operation : S2, S20

(ADR)

Hazard identification number (Kemler No.) : 33

Orange plates

33 1268

Tunnel restriction code : D/E EAC code : 3YE

- Transport by sea

Limited quantities (IMDG) : 1 L

Excepted quantities (IMDG) : E2

Packing instructions (IMDG) : P001

IBC packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T7

Tank special provisions (IMDG) : TP1, TP8, TP28

EmS-No. (Fire): F-EEmS-No. (Spillage): S-EStowage category (IMDG): B

Properties and observations (IMDG) : Immiscible with water.



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#### - Air transport

PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 353 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) : 60L Special provisions (IATA) : A3 ERG code (IATA) : 3H

#### - Inland waterway transport

Classification code (ADN) : F1
Special provisions (ADN) : 640D
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EX, A

Ventilation (ADN) : VE01

Number of blue cones/lights (ADN) : 1

#### - Rail transport

Classification code (RID) : F1
Special provisions (RID) : 640D
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions : T7

(RID)

Portable tank and bulk container special

provisions (RID)

: TP1, TP8, TP28

Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE7
Hazard identification number (RID) : 33

#### 14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : Not determined.

## **SECTION 15: Regulatory information**

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

### 15.1.1. EU-Regulations

Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:

| 5. Benzene | benzene |
|------------|---------|
|            |         |



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| 28. Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.  | Reformate ; Naphtha (petroleum), catalytic reformed ; benzene                      |
|--|--|
| 29. Substances which are classified as germ cell mutagen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 3 or Appendix 4, respectively.   | Reformate ; Naphtha (petroleum), catalytic reformed ; benzene                      |
| 3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F  | Reformate ; Naphtha (petroleum), catalytic reformed ; benzene ; n-Hexane ; Toluene |
| 3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10   | Reformate ; Naphtha (petroleum), catalytic reformed ; benzene ; n-Hexane ; Toluene |
| 3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1   | Reformate ; Naphtha (petroleum), catalytic reformed ; n-Hexane                     |
| 40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. | Reformate ; Naphtha (petroleum), catalytic reformed ; benzene ; n-Hexane ; Toluene |
| 48. Toluene  | Toluene  |
| 72. The substances listed in column 1 of the Table in Appendix 12  | benzene  |

Not listed on the REACH Candidate List

Not listed on REACH Annex XIV (Authorisation List)

## 15.1.2. National regulations

Take note of Directive 92/85/EEC on the safety and health at work of pregnant workers. Take note of Directive 94/33/EC on the protection of young people at work.

#### France

| No ICPE   | Installations classées Désignation de la rubrique  | Code Régime | Rayon |
|-----------|--|-------------|-------|
| 4330.text | Liquides inflammables de catégorie 1, liquides inflammables maintenus à une température supérieure à leur point d'ébullition, autres liquides de point éclair inférieur ou égal à 60° C maintenus à une température supérieure à leur température d'ébullition ou dans des conditions particulières de traitement, telles qu'une pression ou une température élevée (1). |             |       |
| 4331.text | Liquides inflammables de catégorie 2 ou catégorie 3 à l'exclusion de la rubrique 4330.<br>La quantité totale susceptible d'être présente dans les installations y compris dans les cavités souterraines étant :  |             |       |
| 4331.1    | 1. Supérieure ou égale à 1000 t<br>Quantité seuil bas au sens de l'article R. 511-10 : 5 000 t.<br>Quantité seuil haut au sens de l'article R. 511-10 : 50 000 t.  | А           | 2     |
| 4331.2    | 2. Supérieure ou égale à 100 t mais inférieure à 1000 t<br>Quantité seuil bas au sens de l'article R. 511-10 : 5 000 t.<br>Quantité seuil haut au sens de l'article R. 511-10 : 50 000 t.  | E           |       |
| 4331.3    | 3. Supérieure ou égale à 50 t mais inférieure à 100 t<br>Quantité seuil bas au sens de l'article R. 511-10 : 5 000 t.<br>Quantité seuil haut au sens de l'article R. 511-10 : 50 000 t.  | DC          |       |
| 4511.text | Dangereux pour l'environnement aquatique de catégorie chronique 2.   |             |       |



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| 4511.1 | La quantité totale susceptible d'être présente dans l'installation étant :  1. Supérieure ou égale à 200 t Quantité seuil bas au sens de l'article R. 511-10 : 200 t. Quantité seuil haut au sens de l'article R. 511-10 : 500 t.                           | A  | 1 |
|--------|---|----|---|
| 4511.2 | La quantité totale susceptible d'être présente dans l'installation étant :  2. Supérieure ou égale à 100 t mais inférieure à 200 t  Quantité seuil bas au sens de l'article R. 511-10 : 200 t.  Quantité seuil haut au sens de l'article R. 511-10 : 500 t. | DC |   |

#### Germany

: WGK 3, Highly hazardous to water (Classification according to AwSV) Regulatory reference

Risk classification according to VbF : A I - Liquids with a flashpoint below 21°C

**Employment restrictions** : Observe restrictions according Act on the Protection of Young People in Employment

(JArbSchG)

Observe restrictions according Act on the Protection of Working Mothers (MuSchG)

Hazardous Incident Ordinance (12. BImSchV) : Listed in the 12. BlmSchV (Annex I) under: 2.3.1 Ottokraftstoffe und Naphtha

Quantity threshold for operational area under § 1 para. 1

Sentence 1: 2500000 kg Sentence 2: 25000000 kg

TA Luft : Organic Substances

**Netherlands** 

Waterbezwaarlijkheid : categorie Z(2) - afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu

(carcinogeniteit/ mutageniteit/ reprotoxiciteit/bioacumulerend vermogen of toxiciteit)

SZW-lijst van kankerverwekkende stoffen : Reformate is listed

SZW-lijst van mutagene stoffen : Reformate is listed

SZW-lijst van reprotoxische stoffen -

Borstvoeding

: The substance is not listed

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

: The substance is not listed

SZW-lijst van reprotoxische stoffen -: The substance is not listed

Ontwikkeling

**Denmark** 

Class for fire hazard : Class II-1 Store unit : 5 liter

Classification remarks : R10 <H225;H304;H315;H336;H340;H350;H361fd;H411>; Emergency management

guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with

the product

#### Chemical safety assessment

For this substance a chemical safety assessment has been carried out

#### **SECTION 16: Other information**

Abbreviations and acronyms:



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| ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin               |
|--|
| ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route                                    |
| CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC  IATA = International Air Transport Association |
| IMDG = International Maritime Dangerous Goods Code   |
| LEL = Lower Explosive Limit/Lower Explosion Limit  |
| UEL = Upper Explosion Limit/Upper Explosive Limit  |
| REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals   |
| N = Dangerous for the environment  |
| TWA = time weighted average  |
| PBT = persistent, bioaccumulating and toxic (PBT).   |
| vPvB = very persistent and very bioaccumulating  |
| WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)                                       |
| T = Toxic  |
| TLV = Threshold limits   |
| STEL = Short term exposure limit   |
| DNEL = Derived No Effect Level   |
| CSR = Chemical Safety Report   |
| EC50 = Median Effective Concentration  |
| UVCB = Substance of unknown or variable composition, complex reaction products or biological material (UVCB)                       |
| DMEL = Derived Minimal Effect level  |
| PNEC = Predicted No Effect Concentration   |
| OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)  |
| LC50 = Median lethal concentration   |
| LD50 = Median lethal dose  |
| LL50 = Median lethal level   |
| EL50 = Median effective level  |
| ErC50 = EC50 in terms of reduction of growth rate  |
| ErL50 = EL50 in terms of reduction of growth rate  |
| NOEL = no-observed-effect level  |
| NOEC = No observed effect concentration  |
| NOELR = No observed effect loading rate  |
| NOAEC = No observed adverse effect concentration   |
| NOAEL = No observed adverse effect level   |
| EWC = European waste catalogue   |
| NA = Not applicable  |
| N.O.S. = Not Otherwise Specified   |
| VOC = Volatile organic compounds   |
| Quantitative structure-activity relationship (QSAR)  |
| ABM = Algemene beoordelingsmethodiek   |
| STOT = Specific Target Organ Toxicity  |
| BTT = Breakthrough time (maximum wearing time)   |

Sources of key data used to compile the datasheet

: ECHA (European Chemicals Agency), CSR, supplier sds, Loli.

Training advice

: Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Other information

: Exposure scenarios :

https://gunvorgroup.com/exposures/Exposure\_scenarios\_Naphtha.pdf.

## Full text of H- and EUH-statements:

| Aquatic Chronic 2 Hazardous to the aquatic environment – Chronic Hazard, Category 2 |  |
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|---|--|



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| Asp. Tox. 1   | Aspiration hazard, Category 1  |
|---------------|--|
| Carc. 1A      | Carcinogenicity, Category 1A   |
| Carc. 1B      | Carcinogenicity, Category 1B   |
| Eye Irrit. 2  | Serious eye damage/eye irritation, Category 2                            |
| Flam. Liq. 1  | Flammable liquids, Category 1  |
| Flam. Liq. 2  | Flammable liquids, Category 2  |
| 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.   |
| H361fd        | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| 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.                         |
| Muta. 1B      | Germ cell mutagenicity, Category 1B                                      |
| Repr. 2       | Reproductive toxicity, Category 2  |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2                                    |
| STOT RE 1     | Specific target organ toxicity – Repeated exposure, Category 1           |
| STOT RE 2     | Specific target organ toxicity – Repeated exposure, Category 2           |
| STOT SE 3     | Specific target organ toxicity – Single exposure, Category 3, Narcosis   |
|               |  |

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Classification according to Regulation (EC) No. 1272/2008 [CLP] Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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