**SAFETY DATA SHEET**

**According to Safe Work Australia Code of Practice on Preparation of Safety Data Sheets**

**for Hazardous Chemicals**

**EXCELLIUM PRO CONCENTRATE PLUS**

**SDS # :** C3CDTOI1C

# Section 1. Identification

**Product identifier :** EXCELLIUM PRO CONCENTRATE PLUS



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

|  |  |
| --- | --- |
| **Identified uses**Additive for gasoil |  |
| **Uses advised against** Not applicable. | **Reason** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Date of revision*** | **:** *2023/01/04* | Australia | ENGLISH | ***Version*** | ***:*** *1.01* | *1/20* |

TOTAL

|  |  |
| --- | --- |
| **Supplier's details** | **:**TotalEnergies Additives and Fuels SolutionsPlace du Bassin 69700 Givors Tel: +33 (0) 4 72 49 27 00 rm.acs-fds@totalenergies.comTotalEnergies Marketing Asia-Pacific Middle East Pte. Ltd.182 Cecil Street #27-01 Frasers Tower Singapore 069547 Tel: +65 6879 2200 ms.ap-sds@totalenergies.com |
| **Emergency telephone number (with hours of operation)** | **:** |

Australia: +61 2 8014 4558 Asia-Pacific: +65 3158 1074

# Section 2. Hazard(s) identification

**Classification of the :** FLAMMABLE LIQUIDS - Category 4 **substance or mixture** ACUTE TOXICITY (oral) - Category 4

ACUTE TOXICITY (inhalation) - Category 4

SKIN CORROSION/IRRITATION - Category 1

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity:

40.2%

**GHS label elements**

**Hazard pictograms :**

**:**

**DANGER**

**Signal word**

**Hazard statements : H227 - Combustible liquid.**

**H302 + H332 - Harmful if swallowed or if inhaled.**

**H304 - May be fatal if swallowed and enters airways.**

**H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction.**

**Precautionary statements**

|  |  |
| --- | --- |
| **General****Prevention****Response****Storage****Disposal** | **:****:****:****:****:** |
| **Supplemental label elements** | **:** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Section 3. Composition and ingredient information** |  |  |  |
| **Substance/mixture** | **:** Mixture |  |  |  |  |  |
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**Other hazards which do not : result in classification**

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read carefully and follow all instructions.

Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. In case of fire: Use water spray, dry chemical powder or carbon dioxide to extinguish. Store locked up. Store in a well-ventilated place. Keep cool.

Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable.

Risk of explosion if heated under confinement.

|  |  |  |
| --- | --- | --- |
| **Ingredient name** | **% (w/w)** | **CAS number** |
| 2-ethylhexyl nitrate | ≥30 - ≤46 | 27247-96-7 |
| 1-Hexanol, 2-ethyl- | ≥10 - ≤30 | 104-76-7 |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics | ≤10 | 64742-48-9 |
| Hydrocarbons, C10, aromatics, <1% naphthalene | ≤5 | 64742-94-5 |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C16-18 (even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | ≤5 | - |
| methyl-1H-benzotriazole | ≤3 | 29385-43-1 |
| Distillates (petroleum), hydrotreated heavy paraffinic | ≤3 | 64742-54-7 |
| 2,6-di-tert-butyl-p-cresol | ≤3 | 128-37-0 |
| 2-methylpentane-2,4-diol | ≤3 | 107-41-5 |
| N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine | <3 | 91273-04-0 |
| Amides, C18-unsatd., N-[3-(dimethylamine)propyl] | <1 | 1379524-06-7 |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | ≤0.3 | 90640-66-7 |

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**The total concentration of ingredients in this product, reported or not in this section, is 100%.**

**Occupational exposure limits, if available, are listed in Section 8.**

|  |
| --- |
| **Section 4. First aid measures** |
| **Description of necessary first aid measures****Eye contact****Inhalation** | **: :** | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
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**Most important symptoms/effects, acute and delayed Potential acute health effects**

 **Eye contact :** Causes serious eye irritation.

 **Inhalation :** Harmful if inhaled.

 **Skin contact :** Causes severe burns. May cause an allergic skin reaction.

**Ingestion :** Harmful if swallowed. May be fatal if swallowed and enters airways. **Over-exposure signs/symptoms**

 **Eye contact :** Adverse symptoms may include the following:

pain watering

redness

 **Inhalation :** No specific data.

 **Skin contact :** Adverse symptoms may include the following:

|  |  |  |
| --- | --- | --- |
| **Skin contact****Ingestion** | **: :** | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

pain or irritation redness blistering may occur

**Ingestion :** Adverse symptoms may include the following: stomach pains nausea or vomiting

**Indication of immediate medical attention and special treatment needed, if necessary**

|  |  |  |
| --- | --- | --- |
| **Notes to physician****Specific treatments** | **: :** | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. No specific treatment. |
| **Protection of first-aiders** | **:** | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

**See toxicological information (Section 11)**

|  |
| --- |
| **Section 5. Fire-fighting measures** |
| **Extinguishing media****Suitable extinguishing media****Unsuitable extinguishing media****Specific hazards arising from the chemical****Hazardous thermal decomposition products****Special protective actions for fire-fighters****Special protective equipment for fire-fighters****Hazchem code****Remark** | **:****:****:****:****:****:****:****:** | Use dry chemical, CO₂, water spray (fog) or foam.Do not use water jet.Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.Decomposition products may include the following materials:carbon dioxide carbon monoxide nitrogen oxidesPromptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.Due to the low auto inflammation temperature of the product (see section 9), priority must be given to cool down exposed containers/tanks with water sprayFire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.•3ZRisk of explosion if heated under confinement. |
| **Section 6. Accidental release measures** |
| **Personal precautions, protect For non-emergency personnel****For emergency responders****Environmental precautions****Methods and materials for co** | **iv****:****:****:****nt** | **e equipment and emergency procedures**No action shall be taken involving any personal risk or without suitable training.Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).**ainment and cleaning up** |
|  ***Date of revision* :** *2023/01/04* Australia ENGLISH ***Version :*** *1.01 5/20* |
| **Small spill****Large spill** | **: :** | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble.Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight.Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. |
| **Section 7. Handling and storage** |

**Precautions for safe handling**

**Protective measures**

**Advice on general occupational hygiene**

**Conditions for safe storage, including any incompatibilities**

**:** Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

**:** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**:** Store between the following temperatures: -25 to 40°C (-13 to 104°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Keep at a temperature not exceeding 40°C (bulk packaging storage) / 50°C (drums storage). Packaging materials Stainless steel. Aluminium Perfluoroelastomers

# Section 8. Exposure controls and personal protection

**Control parameters**

**Occupational exposure limits**

|  |  |
| --- | --- |
| **Ingredient name** | **Exposure limits** |
| 2-ethylhexan-1-ol | **EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 5.4 mg/m³ 8 hours. TWA: 1 ppm 8 hours. |
| Distillates (petroleum), hydrotreated heavy paraffinic | **Safe Work Australia (Australia, 12/2019). [Oil mist, refined mineral]** TWA: 5 mg/m³ 8 hours. Form: mist |
| 2,6-di-tert-butyl-p-cresol | **Safe Work Australia (Australia, 12/2019).**  TWA: 10 mg/m³ 8 hours. |
| 2-methylpentane-2,4-diol | **Safe Work Australia (Australia, 12/2019).** PEAK: 25 ppm PEAK: 121 mg/m³ |
| N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine | **DFG MAK-values list (Germany, 10/2021). Skin sensitizer.** |

|  |  |
| --- | --- |
| **Advisory OEL** | **:** |
| **Appropriate engineering controls** | **:** |
| **Environmental exposure controls** | **:** |

**Individual protection measures**

|  |  |
| --- | --- |
| **Hygiene measures****Eye/face protection****Skin protection****Hand protection** | **:****:****:** |

No known significant effects or critical hazards.

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Hydrocarbon-proof gloves for aromatic hydrocarbons.

 **Body protection :** IF exposed: Chemical-resistant protective suit.

 **Other skin protection :** Antistatic non-skid safety shoes or boots.

**Respiratory protection :** Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

When using a mask or half mask :

(vapor) Respirator with a vapor filter (EN 14387), Type A.

(aerosol) Respirator with combination filter for vapor/particulate, Type A/P2. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

# Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

|  |  |
| --- | --- |
| **Appearance****Physical state****Color****Odor****Odor threshold pH****Melting point/freezing point** | **:** Liquid.**:** Yellow. to dark orange **:** Aromatic.**:** Not available.**:** Not applicable.**:** Not applicable. |
| **Pour point** | **:** <-30°C (<-22°F) |
| **Boiling point** | **:** >180°C (>356°F) [ISO 3405] |

**Flash point :** Closed cup: 67°C (152.6°F) [ASTM D 93]

**Evaporation rate :** >1 (ether (anhydrous) = 1)

**Flammability (solid, gas) :** The product may form flammable mixtures with air when heated above the flash

|  |  |
| --- | --- |
| **Lower and upper explosion limit/flammability limit****Vapor pressure****Vapor pressure 37.8°C** **(100°F)****Vapor density****Relative density****Density****Solubility(ies)** | point.**:** Lower: 0.5% [ASTM E 681]Upper: 10% [ASTM E 681]**:** <110 kPa (<825.07 mm Hg) [50°C] **:** <100 hPa**:** >1 [Air = 1]**:** 0.92 to 0.95 [ISO 12185]**:** 0.92 to 0.95 g/cm³ [15°C] [ISO 12185]**:** |
| **Media** |  | **Result** |
| water |  | Not soluble |

**Miscible with water :** No.

**Partition coefficient: n- :** Not applicable. **octanol/water**

**Auto-ignition temperature :** 190°C (374°F) [ASTM E 659]

**Decomposition temperature :** >100°C (>212°F)

**Viscosity :** Kinematic (40°C (104°F)): 9 mm2/s (9 cSt) [ISO 3104] **Flow time (ISO 2431) :**

**Particle characteristics**

**Median particle size :** Not applicable.

|  |
| --- |
| **Section 10. Stability and reactivity** |
| **Reactivity****Chemical stability****Possibility of hazardous reactions****Conditions to avoid****Incompatible materials****Hazardous decomposition products** | **:****:****:****:****:****:** | Thermal decomposition at .100 °CStable under recommended storage and handling conditions (see Section 7).Temperatures above 100°C may cause self-accelerating exothermic decomposition which causes a rapid rise in temperature and pressure. This could result in an explosion (bursting of the container), splashing of inert and active material, burning of the product, the emission of toxic gases and exhaust fumes)Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.Strong oxidizing agents Reducing agent.Incompatible with strong acids and basesAminescombustible materialsNatural RubberSynthetic rubberHalogensUnder normal conditions of storage and use, hazardous decomposition products should not be produced. |
| **Section 11. Toxicological information** |

**Information on toxicological effects**

**Acute toxicity** Not available.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product/substance** | **Result** | **Species** | **Dose** | **Exposure** | **Test** |
| 2-ethylhexyl nitrate | LC50 Inhalation Dusts and mists | Rat | 1.5 mg/l ATE value Category 4 | 4 hours | - |
|  | LD50 Dermal | Rabbit | 1100 mg/kg ATE value Category 4 | - | - |
|  | LD50 Oral | Rat | 500 mg/kg ATE value Category 4 | - | - |
| 2-ethylhexan-1-ol | LC50 Inhalation Dusts and mists | Rat | 1.5 mg/l ATE value Category 4 | 4 hours | OECD 403 |
|  | LD50 Dermal | Rat | >3000 mg/kg | - | OECD 402 |
|  | LD50 Oral | Rat - Male | 2047 mg/kg | - | OECD 401 |
| Hydrocarbons, C10-C13, n- | LC50 Inhalation Vapor | Rat | >5000 mg/ | 4 hours | OECD 403 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| alkanes, isoalkanes, cyclics, <2% aromatics |  |  | m³ Read across |  |  |
|  | LD50 Dermal | Rabbit | >5000 mg/kg Read across | - | OECD 402 Acute Dermal Toxicity |
|  | LD50 Dermal | Rabbit | >2000 mg/kg Read across | - | OECD 402 |
|  | LD50 Oral | Rat | >5000 mg/kg Read across | - | OECD 401 |
| Hydrocarbons, C10, aromatics, <1% naphthalene | LC50 Inhalation Vapor | Rat | >6193 mg/ m³ Read across Maximum Concentration (%): | 4 hours | OECD 403 |
|  | LD50 Dermal | Rabbit | >3160 mg/kg Read across | - | OECD 402 |
|  | LD50 Oral | Rat - Female | >3492 mg/kg Read across | - | OECD 401 |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | LD50 Dermal | Rabbit | >2000 mg/kg | - | OECD 402 |
|  | LD50 Oral | Rat | >2000 mg/kg | - | OECD 423 |
| methyl-1H-benzotriazole | LD50 Oral | Rat | 675 mg/kg | - | - |
| Distillates (petroleum), hydrotreated heavy paraffinic | LC50 Inhalation Dusts and mists | Rat - Male, Female | >5 mg/l | 4 hours | OECD 403 Read across |
|  | LD50 Dermal | Rabbit - Male, Female | >5000 mg/kg | - | OECD 402 Read across |
|  | LD50 Oral | Rat - Male, Female | >5000 mg/kg | - | OECD 401 Read across |
| 2,6-di-tert-butyl-p-cresol | LD50 Dermal | Rat | >2000 mg/kg | - | OECD 402 |
|  | LD50 Oral | Rat | >6000 mg/kg | - | OECD 401 |
| 2-methylpentane-2,4-diol | LD50 Dermal | Rat - Male, Female | >2000 mg/kg | - | OECD 402 |
|  | LD50 Oral | Rat - Male, Female | >2000 mg/kg | - | OECD 420 |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | LD50 Dermal | Rat | >2000 mg/kg | - | OECD 402 |
|  | LD50 Oral | Rat | 2500 mg/kg | - | OECD 401 |
| Amides, C18-unsatd., N-[3(dimethylamine)propyl] | LD50 Oral | Rat | >2000 mg/kg | - | - |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | LD50 Dermal | Rat | 1260 mg/kg | - | - |
|  | LD50 Oral | Rat | 1716.2 mg/kg | - | 401 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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 **Conclusion/Summary :** Based on available data, the classification criteria are met.

**Irritation/Corrosion** Not available. Not available. Not available.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product/substance** | **Result** | **Species** | **Score** | **Exposure** | **Test** |
| 2-ethylhexan-1-ol | Eyes - Cornea opacity | Rabbit | 1.44 | - | OECD 405 |
|  | Skin - Erythema/Eschar | Rabbit | 3.33 | 4 hours | OECD 404 |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | Eyes - Irritant | Rabbit | - | - | OECD 405 |
|  | Skin - Irritant | Rabbit | - | 4 hours | OECD 404 |
| methyl-1H-benzotriazole | Eyes - Mild irritant | Rabbit | - | 10 mg | - |
| 2,6-di-tert-butyl-p-cresol | Eyes - Cornea opacity | Rabbit | 0 | - | OECD 405 Read across |
|  | Skin - Edema | Rabbit | 0 | 4 hours | OECD 404 |
| 2-methylpentane-2,4-diol | Eyes - Cornea opacity | Rabbit | 0.8 | - | OECD 405 |
|  | Skin - Edema | Rabbit | 0.5 | - | OECD 404 |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | Skin - Edema | Rabbit | 3.33 | - | OECD 404 |
|  | Skin - Erythema/Eschar | Rabbit | 2.66 | - | OECD 404 |

 **Skin :** Based on available data, the classification criteria are met.

 **Eyes :** Based on available data, the classification criteria are met.

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

**Sensitization** Not available.

|  |  |  |  |
| --- | --- | --- | --- |
| **Product/substance** | **Route of exposure** | **Species** | **Result** |
| 2-methylpentane-2,4-diol | skin | Guinea pig | Not sensitizing |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | skin | Guinea pig | Sensitizing |

 **Skin :** Based on available data, the classification criteria are met.

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

**Mutagenicity** Not available.

 **Conclusion/Summary :** Based on available data, the classification criteria are not met.

**Carcinogenicity** Not available.

 **Conclusion/Summary :** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Not available.

 **Conclusion/Summary :** Based on available data, the classification criteria are not met.

**Teratogenicity** Not available.

**Conclusion/Summary :** Based on available data, the classification criteria are not met. **Specific target organ toxicity (single exposure)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Category** | **Route of exposure** | **Target organs** |
| Hydrocarbons, C10, aromatics, <1% naphthalene | Category 3 | - | Narcotic effects |

**Conclusion/Summary :** Based on available data, the classification criteria are not met. **Specific target organ toxicity (repeated exposure)**

 **Conclusion/Summary :** Based on available data, the classification criteria are not met.

**Aspiration hazard**

|  |  |
| --- | --- |
| **Name** | **Result** |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C10, aromatics, <1% naphthalene | ASPIRATION HAZARD - Category 1 |
| Distillates (petroleum), hydrotreated heavy paraffinic | ASPIRATION HAZARD - Category 1 |

 **Conclusion/Summary :** Based on available data, the classification criteria are met.

**Information on the likely :** Not available. **routes of exposure**

**Potential acute health effects**

|  |  |
| --- | --- |
| **Eye contact** | **:** Causes serious eye irritation. |
| **Inhalation** | **:** Harmful if inhaled. |
| **Skin contact** | **:** Causes severe burns. May cause an allergic skin reaction. |
| **Ingestion** | **:** Harmful if swallowed. May be fatal if swallowed and enters airways. |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact :** Adverse symptoms may include the following:

pain watering

redness

**Inhalation :** No specific data.

**Skin contact :** Adverse symptoms may include the following:

pain or irritation redness blistering may occur

**Ingestion :** Adverse symptoms may include the following:

stomach pains nausea or vomiting

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

|  |  |  |
| --- | --- | --- |
| **Potential immediate effects** | **:** | Not available. |
| **Potential delayed effects** | **:** | Not available. |
| **Long term exposure****Potential immediate effects** | **:** | Not available. |
| **Potential delayed effects** | **:** | Not available. |

**Potential chronic health effects** Not available.

|  |  |
| --- | --- |
| **General** | **:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| **Carcinogenicity** | **:** No known significant effects or critical hazards. |
| **Mutagenicity** | **:** No known significant effects or critical hazards. |
| **Reproductive toxicity** | **:** No known significant effects or critical hazards. |

**Numerical measures of toxicity Acute toxicity estimates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product/substance** | **Oral (mg/ kg)** | **Dermal (mg/kg)** | **Inhalation** **(gases)****(ppm)** | **Inhalation** **(vapors)****(mg/l)** | **Inhalation (dusts and mists) (mg/l)** |
| EXCELLIUM PRO CONCENTRATE PLUS |  |  |  |  |  |

**Other information :**

Not available.

# Section 12. Ecological information

**Toxicity**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Product/substance** | **Result** | **Species** | **Exposure** | **Test** |
| 2-ethylhexyl nitrate | Acute EC50 12.6 mg/l | - | 48 hours | - |
|  | Acute LC50 1.9 mg/l | Fish | 96 hours | - |
|  | Acute NOEC 1.42 mg/l | Fish | 96 hours | - |
| 2-ethylhexan-1-ol | Acute EC50 16.6 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 39 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |
|  | Acute LC50 17.1 mg/l | Fish - Leuciscus idus | 96 hours | OECD 203 |
|  | Chronic EC10 5.3 mg/l | Algae - Desmodesmus subspicatus  | 72 hours | OECD 201 |
| Hydrocarbons, C10-C13, nalkanes, isoalkanes, cyclics,<2% aromatics | Acute EC50 >1000 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 >1000 mg/l | Daphnia - Daphnia Magna | 48 hours | OECD 202 |
|  | Acute NOELR 1000 mg/l | Algae -Pseudokirchnerella subcapitata | 72 hours | OECD 201 |
|  | Chronic NOELR 0.18 mg/l | Daphnia - Daphnia Magna | 21 days | - |
|  | Chronic NOELR 0.1 mg/l | Fish - Oncorhynchus mykiss | 28 days | - |
| Hydrocarbons, C10, aromatics, <1% naphthalene | Acute EC50 1 to 3 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 3 mg/l | Daphnia - Daphnia Magna | 48 hours | OECD 202 |
|  | Acute LC50 2 mg/l | Fish | 96 hours | - |
|  | Acute NOEL 1 mg/l | Algae -Pseudokirchnerella subcapitata | 72 hours | OECD 201 |
|  | Chronic NOEL 0.77 mg/l | Daphnia - Daphnia Magna | 21 days | - |
|  | Chronic NOEL 0.44 mg/l | Fish - Oncorhynchus mykiss | 28 days | - |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | Acute EC50 85.4 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 33.6 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Acute LC50 0.406 mg/l | Fish - Oncorhynchus mykiss | 96 hours | OECD 203 |
|  | Chronic NOEC 57.6 mg/l | Algae -Pseudokirchneriella subcapitata | 72 hours | OECD 201 |
| methyl-1H-benzotriazole | Acute EC50 53 mg/l | - | 72 hours | - |
|  | Acute EC50 8.58 mg/l | Daphnia | 48 hours | - |
|  | Acute LC50 102 mg/l Fresh water | Crustaceans -Ceriodaphnia dubia | 48 hours | - |
|  | Acute LC50 38 mg/l Fresh water | Fish - Pimephales promelas | 96 hours | - |
|  | Acute NOEC 30 mg/l | Algae - Skeletonema costatum | 72 hours | - |
| Distillates (petroleum), hydrotreated heavy paraffinic | Acute EC50 >100 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 >10000 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |
|  | Chronic NOEL >100 mg/l | Algae -Pseudokirchneriella subcapitata | 72 hours | OECD 201 |
|  | Chronic NOEL >1000 mg/l | Crustaceans - Daphnia magna | 21 days | - |
| 2,6-di-tert-butyl-p-cresol | Acute EC50 0.48 mg/l | - | 48 hours | OECD 202 |
|  | Acute EC50 1440 µg/l Fresh water | Daphnia - Daphnia pulex Neonate | 48 hours | - |
|  | Acute LC50 1.1 mg/l | Fish - Oryzias latipes | 96 hours | OECD 203 |
|  | Chronic EC10 0.4 mg/l | Algae - Desmodesmus subspicatus | 72 hours | OECD 201 |
|  | Chronic NOEC 0.07 mg/l | Daphnia - Daphnia magna | 21 days | OECD 211 |
|  | Chronic NOEC 0.053 mg/l | Fish - Danio rerio | 30 days | OECD 210 |
| 2-methylpentane-2,4-diol | Acute EC50 430 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 2800000 µg/l Fresh water | Crustaceans -Ceriodaphnia reticulata Larvae | 48 hours | - |
|  | Acute EC50 16500 mg/l | Daphnia | 48 hours | - |
|  | Acute EC50 3200000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours | - |
|  | Acute EC50 3038 mg/l | Micro-organism | 5 minutes | - |
|  | Acute LC50 8690 mg/l | Fish | 96 hours | - |
|  | Acute LC50 8000000 µg/l Marine water | Fish - Alburnus alburnus | 96 hours | - |
|  | Acute NOEC 429 mg/l | Algae -Pseudokirchnerella subcapitata | 72 hours | OECD 201 |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | Acute EC50 >1 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 2.2 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |
|  | Acute LC50 1.1 mg/l | Fish - Danio rerio | 96 hours | OECD 203 |
|  | Chronic NOEC 0.33 mg/l | Algae - Desmodesmus subspicatus | 72 hours | OECD 201 |
|  | Chronic NOEC 0.07 mg/l | Crustaceans - Daphnia magna | 21 days | OECD 211 |
| Amides, C18-unsatd., N-[3(dimethylamine)propyl] | Acute EC50 >0.96 mg/l | - | 72 hours | OECD 201 |
|  | Acute EC50 0.24 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |
|  | Acute EC50 192 mg/l | Micro-organism | 3 hours | OECD 209 |
|  | Acute LC50 0.94 mg/l | Fish - Danio rerio | 96 hours | OECD 203 |
|  | Chronic EC10 0.32 mg/l | Algae -Pseudokirchneriella subcapitata | 72 hours | OECD 201 |
|  | Chronic NOEC 0.048 mg/l | Crustaceans - Daphnia magna | 21 days | OECD 211 |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | Acute EC50 6.8 mg/l | - | 72 hours | OECD 202 |
|  | Acute EC50 24.1 mg/l | Crustaceans - Daphnia magna | 48 hours | OECD 202 |
|  | Acute LC50 420 mg/l | Fish - Poecilia reticulata | 96 hours | OECD 203 |
|  | Chronic NOEC 0.5 mg/l | Algae -Pseudokirchneriella subcapitata | 72 hours | OECD 201 |
|  | Chronic NOEC 1.9 mg/l | Crustaceans - Daphnia magna | 21 days | OECD 202 |

**Persistence and degradability**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Product/substance** | **Test** | **Result** | **Dose** | **Inoculum** |
| 2-ethylhexan-1-ol | OECD 301C | 100 % - Readily - 14 days | - | - |
| Hydrocarbons, C10-C13, nalkanes, isoalkanes, cyclics,<2% aromatics | OECD 301 F | 80 % - Readily - 28 days | - | - |
| Hydrocarbons, C10, aromatics, <1% naphthalene | OECD 301 F | 49.6 % - Not readily - 28 days | - | - |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | OECD 301B | 77 % - Readily - 29 days | - | Activated sludge |
| Distillates (petroleum), hydrotreated heavy paraffinic | OECD 301F | 31 % - Not readily - 28 days | - | Activated sludge |
| 2,6-di-tert-butyl-p-cresol | OECD 301C | 4.5 % - Not readily - 28 days | - | Activated sludge |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | OECD 301B | 9 % - Not readily - 28 days | - | Activated sludge |
| Amides, C18-unsatd., N-[3(dimethylamine)propyl] | OECD 301D | 75 % - Readily - 28 days | - | Activated sludge |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | OECD 301D | 0 % - Not readily - 28 days | - | Activated sludge |
| **Product/substance** | **Aquatic half-life** | **Photolysis** | **Biodegradability** |
| 2-ethylhexyl nitrate | - | - | Not readily |
| 2-ethylhexan-1-ol | - | - | Readily |
| Hydrocarbons, C10-C13, nalkanes, isoalkanes, cyclics,<2% aromatics | - | - | Readily |
| Hydrocarbons, C10, aromatics, <1% naphthalene | - | - | Not readily |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even  | - | - | Readily |
| numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts methyl-1H-benzotriazole | - | - | Not readily |
| Distillates (petroleum), hydrotreated heavy paraffinic | - | - | Not readily |
| 2,6-di-tert-butyl-p-cresol | - | - | Not readily |
| 2-methylpentane-2,4-diol | - | - | Readily |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | - | - | Not readily |
| Amides, C18-unsatd., N-[3(dimethylamine)propyl] | - | - | Readily |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | - | - | Readily |

**Bioaccumulative potential**

|  |  |  |  |
| --- | --- | --- | --- |
| **Product/substance** | **LogKow** | **BCF** | **Potential** |
| 2-ethylhexyl nitrate | 5.24 | - | high |
| 2-ethylhexan-1-ol | 2.9 | 25.33 | low |
| 1-Propanaminium, 3-aminoN-(carboxymethyl)-N,Ndimethyl-, N-(C16-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts | 0.8 | - | low |
| Distillates (petroleum), hydrotreated heavy paraffinic | >4 | - | high |
| 2,6-di-tert-butyl-p-cresol | 5.1 | 1277 | high |
| 2-methylpentane-2,4-diol | 0.14 | - | low |
| N,N-bis(2-ethylhexyl)-( (1,2,4-triazol-1-yl)methyl) amine | 5.3 | 5 | low |
| Amides, C18-unsatd., N-[3(dimethylamine)propyl] | 6.1 | - | high |
| Amines, polyethylenepoly-, tetraethylenepentamine fraction | -3.16 | - | low |
| **Mobility in soil****Soil/water partition coefficient (KOC) Mobility in soil** | **: :** | Not available.Given its physical and chemical characteristics, the product is generally mobile in the ground. It may contaminate ground water. The product is insoluble and floats on water. |
| **Other adverse effects** | **:** | No known significant effects or critical hazards. |
| **Section 13. Disposal considerations** |
| **Disposal methods** | **:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. |
| **Section 14. Transport information** |



**Additional information**

**ADG :** The product is not regulated as a dangerous good when transported by road or rail

in either an IBC, or in other container types if ≤500 kg. This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Hazchem code** •3Z

**Special provisions** 274, 331, 335, 375, AU01

|  |  |  |
| --- | --- | --- |
| **ADR/RID****IMDG****ICAO/IATA****Special precautions for user****Transport in bulk according to IMO instruments** | **:****:****:****:****:** | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.**Hazard identification number** 90**Limited quantity** 5 L**Special provisions** 274, 335, 601, 375and 4.1.1.4 to 4.1.1.8.**Emergency schedules** F-A, S-F**Special provisions** 274, 335, 969This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.**Quantity limitation** Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities Passenger Aircraft: 30 kg. Packaging instructions: Y964.**Special provisions** A97, A158, A197**Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.Not available. |
| **Section 15. Regulatory information** |

**Standard for the Uniform Scheduling of Medicines and Poisons** Not regulated.

**Model Work Health and Safety Regulations - Scheduled Substances** No listed substance

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals** Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

**Australia inventory (AIIC) :** All components are listed or exempted. **Canada inventory (DSL/NDSL) :** All components are listed or exempted.

|  |  |
| --- | --- |
| **China inventory (IECSC)** | **:** All components are listed or exempted. |
| **Europe inventory (EC)****Japan inventory** | **:** All components are listed or exempted.**: Japan inventory (CSCL)**: Not determined.**Japan inventory (ISHL)**: Not determined. |

**New Zealand Inventory of Chemicals (NZIoC) :** All components are listed or exempted. **Philippines inventory (PICCS) :** All components are listed or exempted. **Korea inventory (KECI) :** At least one component is not listed.

**Taiwan Chemical Substances Inventory (TCSI) :** All components are listed or exempted.

|  |  |
| --- | --- |
| **Thailand inventory** | **:** Not determined. |
| **Turkey inventory** | **:** Not determined. |

**United States inventory (TSCA 8b) :** All components are listed or exempted. **Vietnam inventory :** All components are listed or exempted.

**The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.**

# Section 16. Any other relevant information

**History**

**Date of revision :** 2023/01/04

**Date of previous revision :** 2022/11/25

**Version :** 1.01

**Key to abbreviations :** ADG = Australian Dangerous Goods

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

SUSMP = Standard Uniform Schedule of Medicine and Poisons UN = United Nations

**Procedure used to derive the classification**

|  |  |
| --- | --- |
| **Classification** | **Justification** |
| FLAMMABLE LIQUIDS - Category 4 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 4 | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 4 | Calculation method |
| SKIN CORROSION/IRRITATION - Category 1 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

**References :** Supplément : ATC79."Best Practices Manual.2-Ethylhexyl nitrate (2EHN).2004". ATC86."Best Practices Manual. Fuel Additive packages containing 2-Ethylhexyl nitrate (2EHN). 2005".

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**

**Indicates information that has changed from previously issued version.**

**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**