# SAFETY DATA SHEET

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

### 1.1 Product identifier

**Product name** Iloform PN 221

**Product code** 467016-FR01

**SDS #** 467016

**Product type** Liquid.

**Use of the substance/ mixture** Metalworking fluid - neat.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

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

**Supplier**

ECOTIP
Orce Nikolov 202-3/1
1000 Skopje, Macedonia
Macedonia

+386 (0) 15136242

**E-mail address** MSDSadvice@bp.com

### 1.4 Emergency telephone number

**EMERGENCY TELEPHONE NUMBER** Carechem: +44 (0) 1235 239 670 (24/7)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** Mixture

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

Asp. Tox. 1, H304

See Section 16 for the full text of the H statements declared above.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

### 2.2 Label elements

**Hazard pictograms**

**Signal word** Danger

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

**Precautionary statements**

**Prevention** Not applicable.

**Response** P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

**Storage** Not applicable.

**Disposal** P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

**Supplemental label elements** Repeated exposure may cause skin dryness or cracking.

**EU Regulation (EC) No. 1907/2006 (REACH)**

## SECTION 2: Hazards identification

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.** This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

**Other hazards which do not result in classification** Prolonged or repeated contact may dry skin and cause irritation.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Product definition** Mixture

Hydrocarbon solvent and additives.

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|---|---|---|---|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | REACH #: 01-2119456810-40<br>EC: 920-901-0<br>CAS: - | ≥90 | Asp. Tox. 1, H304<br>EUH066 | - | [1] |

**See Section 16 for the full text of the H statements declared above.**

Type

[1] Substance classified with a health or environmental hazard

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

**Skin contact** Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

**Inhalation** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**Ingestion** Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Aspiration hazard Can enter lungs and cause damage. Get medical attention immediately.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

See Section 11 for more detailed information on health effects and symptoms.

**Potential acute health effects**

## SECTION 4: First aid measures

**Inhalation** Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.

**Ingestion** Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs. Ingestion of large quantities may cause nausea and diarrhoea.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** See: Section 11. Toxicological Information - Potential acute health effects: Eye contact

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Inhalation** Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

**Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.

**Skin contact** Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

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

**Notes to physician** Treatment should in general be symptomatic and directed to relieving any effects.
Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment.
Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided.
Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media** Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

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

**Hazards from the substance or mixture** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** Combustion products may include the following:
carbon oxides (CO, $CO_2$) (carbon monoxide, carbon dioxide)

### 5.3 Advice for firefighters

**Special precautions for fire-fighters** No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

**Special protective equipment for fire-fighters** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters' protective clothing will only provide limited protection. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Contact emergency personnel. 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 spilt material. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.

**For emergency responders** Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** Avoid dispersal of spilt 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).

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

## SECTION 6: Accidental release measures

**Small spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill**

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.
See Section 5 for firefighting measures.
See Section 8 for information on appropriate personal protective equipment.
See Section 12 for environmental precautions.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures**

Put on appropriate personal protective equipment. Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Do not reuse container. Empty containers retain product residue and can be hazardous. Use only with adequate ventilation. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result may induce allergic skin reactions. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Concentrations of mist, fumes and vapours in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agitation or heating must be avoided.

**Advice on general occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep away from heat and direct sunlight. 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. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

**Not suitable**

Prolonged exposure to elevated temperature

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|

**Europe**

No exposure limit value known.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Biological exposure indices**

## SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure indices |
|---|---|

No exposure indices known.

**Derived No Effect Level**

No DNELs/DMELs available.

**PNECs**

Not available.

### 8.2 Exposure controls

**Appropriate engineering controls**

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

**Individual protection measures**

**Hygiene measures**

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. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**

Use with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended: half-face mask - organic vapor filter (Type A).
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

**Eye/face protection**

Safety glasses with side shields.

**Skin protection**

**Hand protection**

**General Information:**

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Recommended: Nitrile gloves.
**Breakthrough time:**

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.
Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.
If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.
It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times

## SECTION 8: Exposure controls/personal protection

may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

**Glove Thickness:**

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.

• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

**Skin and body**

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Wear clothing and footwear that cannot be penetrated by chemicals or oil.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

**Refer to standards:**

Respiratory protection: EN 529
Gloves: EN 420, EN 374
Eye protection: EN 166
Filtering half-mask: EN 149
Filtering half-mask with valve: EN 405
Half-mask: EN 140 plus filter
Full-face mask: EN 136 plus filter
Particulate filters: EN 143
Gas/combined filters: EN 14387

**Environmental exposure controls**

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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Liquid. |
| **Colour** | Colourless. [Light] |
| **Odour** | Unfragranced |
| **Odour threshold** | Not available. |
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | Closed cup: >62°C (>143.6°F) [Pensky-Martens ASTM D 93] |
| **Evaporation rate** | Not available. |
| **Flammability** | Not available. |
| **Lower and upper explosion limit** | Not available. |

## SECTION 9: Physical and chemical properties

**Vapour pressure**

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | |
|---|---|---|---|---|---|
| | mm Hg | kPa | Method | mm Hg | kPa |
| Alkanes, C11-15-iso | 0.3 | 0.04 | | | |

**Vapour density**

Not available.

Not available.

**Density and/or Relative density**

<1000 kg/m³ (<1 g/cm³) at 15°C

**Solubility(ies)**

| Media | Result |
|---|---|
| water | Not soluble |

**Partition coefficient n-octanol/ water (log value)**

Not applicable.

**Auto-ignition temperature**

Not available.

**Decomposition temperature**

Not available.

**Kinematic viscosity**

Kinematic: 1.36 $mm^2/s$ (1.36 cSt) at 40°C

**Explosive properties**

Not available.

**Oxidising properties**

Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**10.2 Chemical stability**

The product is stable.

**10.3 Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

**10.4 Conditions to avoid**

Avoid all possible sources of ignition (spark or flame).

**10.5 Incompatible materials**

Reactive or incompatible with the following materials: oxidising materials.

**10.6 Hazardous decomposition products**

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

## SECTION 11: Toxicological information

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

**Acute toxicity**

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Rat - Oral - LD50**<br>>5000 mg/kg<br>OECD 401<br><br>**Rabbit - Dermal - LD50**<br>>5000 mg/kg<br>OECD 402<br><br>**Rat - Inhalation - LC50 Vapour**<br>>4951 mg/m³ [4 hours]<br>OECD 403 |

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

## SECTION 11: Toxicological information

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Rabbit - Skin - Non-irritant to skin.**<br>OECD 404 |

### Serious eye damage/eye irritation

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Rabbit - Eyes - Non-irritating to the eyes.** |

### Respiratory corrosion/irritation

Not available.

### Respiratory or skin sensitization

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Guinea pig - skin**<br>OECD 406<br>Result: Not sensitising |

### Germ cell mutagenicity

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **In vitro - Bacteria**<br>Bacterial Reverse Mutation Test<br>Result: Negative<br><br>**In vitro - Mammal - species unspecified**<br>In vitro Mammalian Cell Gene Mutation Test<br>Result: Negative<br><br>**In vitro - Mammal - species unspecified**<br>Genetic Toxicology: In vitro Sister Chromatid Exchange Assay in Mammalian Cells<br>Result: Negative |

### Carcinogenicity

Not available.

### Reproductive toxicity

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Rat - Inhalation**<br>OECD 414<br>Maternal toxicity: Negative<br>Fertility effects: Negative<br>Developmental: Negative |

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

| Product/ingredient name | Result |
|---|---|

## SECTION 11: Toxicological information

| | |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | ASPIRATION HAZARD - Category 1 |

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

**Potential acute health effects**

**Inhalation** Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.

**Ingestion** Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs. Ingestion of large quantities may cause nausea and diarrhoea.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** See: Section 11. Toxicological Information - Potential acute health effects: Eye contact

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

**Inhalation** Exposure to high concentrations can cause dizziness, lightheadedness, headache, nausea and blurred vision. Higher levels may cause unconsciousness.
May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

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

**Skin contact** Adverse symptoms may include the following:
irritation
dryness
cracking

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Inhalation** Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

**Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.

**Skin contact** Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | **Acute - ErL50**<br>OECD 201<br>Algae<br>>1000 mg/l [72 hours]<br><br>**Acute - ErL50**<br>OECD 202<br>Daphnia<br>>1000 mg/l [48 hours]<br><br>**Acute - LL50** |

## SECTION 12: Ecological information

OECD 203
Fish
>1000 mg/l [96 hours]

**Chronic - NOELR**
OECD 201
Algae
1000 mg/l [72 hours]

**Chronic - NOELR**
OECD 211
Daphnia
1 mg/l [21 days]

**Environmental hazards** Not classified as dangerous

### 12.2 Persistence and degradability

Expected to be biodegradable.

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | OECD 301F<br>31.3% [28 days] - Inherent |

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient**

Not available.

**Results of PMT and vPvM assessment**

| Product/ingredient name | PMT | P | M | T | vPvM | vP | vM |
|---|---|---|---|---|---|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | No | No | No | No | No | No | No |

**Mobility** Volatile. Liquid. insoluble in water.

**Conclusion/Summary** The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

**Regulation (EC) No. 1907/2006 [REACH]**

| Product/ingredient name | PBT | P | B | T | vPvB | vP | |
|---|---|---|---|---|---|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | No | N/A | N/A | No | N/A | N/A | N/A |

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

| Product/ingredient name | PBT | P | B | T | vPvB | vP | |
|---|---|---|---|---|---|---|---|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | No | No | No | No | No | No | No |

**Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP]** The product does not meet the criteria to be considered as a PBT or vPvB.

### 12.6 Endocrine disrupting properties

No known significant effects or critical hazards.

Not available.

**Conclusion/Summary [Product]** This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

**Hazardous waste** Yes.

**European waste catalogue (EWC)**

| Waste code | Waste designation |
|---|---|
| 14 06 03* | other solvents and solvent mixtures |

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

**Packaging**

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

| Waste code | European waste catalogue (EWC) |
|---|---|
| 15 01 10* | packaging containing residues of or contaminated by hazardous substances |

**Special precautions** 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**References** Commission 2014/955/EU
Directive 2008/98/EC

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number or ID number** | Not regulated. | 9003 | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | SUBSTANCES WITH A FLASH-POINT ABOVE 60°C AND NOT MORE THAN 100°C (Alkanes, C11-15-iso) | - | - |
| **14.3 Transport hazard class(es)** | - | 9 | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | The product is only regulated as a dangerous good when transported in tank vessels. | - | - |

**14.6 Special precautions for user** Not available.

**14.7 Maritime transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

| Product/ingredient name | % | Designation [Usage] |
|---|---|---|
| Iloform PN 221 | ≥90 | 3 |

**Labelling** Not applicable.

#### Other regulations

**REACH Status** The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

**United States inventory (TSCA 8b)** All components are active or exempted.

**Australia inventory (AIIC)** All components are listed or exempted.

**Canada inventory** All components are listed or exempted.

**China inventory (IECSC)** All components are listed or exempted.

**Japan inventory (CSCL)** All components are listed or exempted.

**Korea inventory (KECI)** All components are listed or exempted.

**Philippines inventory (PICCS)** All components are listed or exempted.

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

**Explosive precursors** Not applicable.

##### Ozone depleting substances (EU 2024/590)

Not listed.

##### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

**15.2 Chemical safety assessment** A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

## SECTION 16: Other information

**Abbreviations and acronyms**

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods

## SECTION 16: Other information

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)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SADT = Self-Accelerating Decomposition Temperature
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative
Varies = may contain one or more of the following 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4/ RRN 01-2119483621-38, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

| Classification | Justification |
|---|---|
| Asp. Tox. 1, H304 | Calculation method |

**Full text of classifications [CLP/GHS]**

| | |
|---|---|
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |

**Europe**

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H304<br>EUH066 | May be fatal if swallowed and enters airways.<br>Repeated exposure may cause skin dryness or cracking. |
| **Full text of classifications [CLP/GHS]** | Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |

**History**

| | |
|---|---|
| **Date of issue/ Date of revision** | 14/11/2025. |
| **Date of previous issue** | No previous validation. |
| **Prepared by** | Product Stewardship |

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

**Notice to reader**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

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## SECTION 16: Other information

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PNECs

Not available.

**Rabbit - Dermal - LD50**
>5000 mg/kg
OECD 402

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

**Rat - Inhalation - LC50 Vapour**
>4951 mg/m³ [4 hours]
OECD 403

**Flammability**

**Density and/or Relative density**

**Density and/or Relative density**

**Partition coefficient n-octanol/ water (log value)**

**Conclusion/Summary [Product]**

**Kinematic viscosity**

### Skin corrosion/irritation

**Result**
**Rabbit - Skin - Non-irritant to skin.**
OECD 404

**Product/ingredient name**
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

Not available.

**Conclusion/Summary [Product]**

### Serious eye damage/eye irritation

**Result**
**Rabbit - Eyes - Non-irritating to the eyes.**

**Product/ingredient name**
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

**Conclusion/Summary [Product]** Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** Not available.

### Respiratory or skin sensitization

**Result**
**Guinea pig - skin**
OECD 406
Result: Not sensitising

**Product/ingredient name**
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

### Germ cell mutagenicity

**Result**
**In vitro - Bacteria**
Bacterial Reverse Mutation Test
Result: Negative

**In vitro - Mammal - species unspecified**
In vitro Mammalian Cell Gene Mutation Test
Result: Negative

**In vitro - Mammal - species unspecified**
Genetic Toxicology: In vitro Sister Chromatid Exchange Assay in Mammalian Cells
Result: Negative

**Product/ingredient name**
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

**Conclusion/Summary [Product]** Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** Not available.

## Reproductive toxicity

| Result | Product/ingredient name |
|---|---|
| **Rat - Inhalation**<br>OECD 414<br>Maternal toxicity: Negative<br>Fertility effects: Negative<br>Developmental: Negative | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

**Conclusion/Summary [Product]** Not available.

## Specific target organ toxicity (single exposure)

Not available.

## Specific target organ toxicity (repeated exposure)

Not available.

## Aspiration hazard

| Result | Product/ingredient name |
|---|---|
| ASPIRATION HAZARD - Category 1 | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

| Result | Product/ingredient name |
|---|---|
| **Acute - ErL50**<br>OECD 201<br>Algae<br>>1000 mg/l [72 hours] | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |
| **Acute - ErL50**<br>OECD 202<br>Daphnia<br>>1000 mg/l [48 hours] | |
| **Acute - LL50**<br>OECD 203<br>Fish<br>>1000 mg/l [96 hours] | |
| **Chronic - NOELR**<br>OECD 201<br>Algae<br>1000 mg/l [72 hours] | |
| **Chronic - NOELR**<br>OECD 211<br>Daphnia<br>1 mg/l [21 days] | |

| Result | Product/ingredient name |
|---|---|
| OECD 301F<br>31.3% [28 days] - Inherent | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

**Soil/water partition coefficient**

Not available.

**Results of PMT and vPvM assessment**

| vM | vP | vPvM | T | M | P | PMT | Product/ingredient name |
|---|---|---|---|---|---|---|---|
| No | No | No | No | No | No | No | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

Volatile. Liquid. insoluble in water. **Mobility**

The product does not meet the criteria to be considered as a PMT or vPvM. **Conclusion/Summary**

**Regulation (EC) No. 1907/2006 [REACH]**

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

| | vP | vPvB | T | B | P | PBT | Product/ingredient name |
|---|---|---|---|---|---|---|---|
| N/A | N/A | N/A | No | N/A | N/A | No | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

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

| | vP | vPvB | T | B | P | PBT | Product/ingredient name |
|---|---|---|---|---|---|---|---|
| No | No | No | No | No | No | No | Hydrocarbons, C11-C13, isoalkanes, <2% aromatics |

**Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP]**

The product does not meet the criteria to be considered as a PBT or vPvB.

Not available.

**Conclusion/Summary [Product]**

This substance/mixture does not contain any components that are considered to have endocrine disrupting properties.

**12.7 Other adverse effects**

No known significant effects or critical hazards.