1 IDENTIFICATION OF THE SUBSTANCE/EC REPRESENTATIVE/MANUFACTURER

1.1 Product identifiers
IUPAC name: Chlorinated higher paraffin hydrocarbons
Synonyms: Chloraffin, unichlor, paroil, carbowax, chlorkozan, paraffin wax, cereclor, Chlorinated paraffin liquid, chlorinated paraffin, Medium-chain chlorinated paraffins.
EC number: 287-477-0
EC name: Alkanes, C14-C17, chloro
CAS number: 85535-85-9
CAS name: chlorinated paraffins
RTECS: RV0450000
Reference number: 01-2119519269-33-0006

1.2 Identified uses
Chlorinated paraffins, liquid, are used as a component in oiling compositions in leather industry, as plasticizers in polymer composite materials, in production of chlorinated rubber, bituminous coatings and sealant formulations, as flame retardant in production of plastics and textiles.

1.3 Details of the manufacturer/EC representative:
Manufacturer: JSC «Kaustik» Volgograd
Address (postal and legal): 40 let VLKSM str., 57, 400097, Volgograd, Russia
Telephone: +7(8442) 40 66 81; fax: (8442) 40 66 03
E-mail address: to@kaustik.ru
Contact person: Aleksey Chebotarev
EC representative: Kaustik Europe b.v.
Address (postal and legal): Stockholm 26, 2993 LM Barendrecht, Netherlands
Telephone: +7 903 4795566; +31610952861
Contact person: Vladimir Khodyrev

1.4 Emergency telephone number
+7(8442), 406603 or 406245 from 8:00 a.m. to 5:00 p.m. according to Moscow time (UTC +3).

2 HAZARDS IDENTIFICATION

2.1 Classification and labelling according to CLP
The substance is moderately hazardous upon human organism.

Classification
Chlorinated paraffins are classified per Regulation (EC) No 1272/2008 (CLP) as follows:
For physicochemical properties: no classification
for health hazards: Effect on or via lactation
Hazard statement: H362: May cause harm to breast-fed children
for environmental hazards: Aquatic Chronic 1
Hazard statement: H410: Very toxic to aquatic life with long lasting effects
for additional hazard classes:
Additional hazard classes: Aquatic Acute 1
Additional hazard statements: H400: Very toxic to aquatic life
Labelling
Signal Word: Warning
Hazard pictogram:
GHS09: environment

Hazard statements:
H362: May cause harm to breast-fed children.
H410: Very toxic to aquatic life with long lasting effects.

2.2. Classification according to DSD / DPD
Chlorinated paraffins are classified in Annex V of Directive 67/548/EEC (DSD) (Index № 602-095-00-X) as follows:

Classification for health effects: R66 Repeated exposure may cause skin dryness or cracking
R64 May cause harm to breast-fed babies.
for the environment: N; R50/53 Dangerous for the environment; Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.3 Other hazards
2.3.1. Summary and overall Conclusions on PBT or vPvB Properties
Chlorinated paraffins are not considered a PBT or vPvB substance.

2.3.2. Precautionary statements
P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P263: Avoid contact during pregnancy/while nursing.
P264: Wash... thoroughly after handling.
P270: Do no eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P308+P313: If exposed or concerned: Get medical advice/attention.
P391: Collect spillage.
P501: Dispose of contents/container to... (hazardous or special waste collection point)

Additional labelling requirements (CLP supplemental hazard statement):
EUH066: Repeated exposure may cause skin dryness or cracking.

3 COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components:</th>
<th>CAS №</th>
<th>EC number (EINECS, EILINCS)</th>
<th>Mass fraction, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorinated paraffins</td>
<td>85535-85-9</td>
<td>287-477-0</td>
<td>100</td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES
4.1 Description of first aid measures
In case of intoxication by inhalation
- Remove patient from exposure, keep warm and at rest.
In case of eye contact
- Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes.
- Obtain medical attention.

In case of skin contact
- Remove contaminated clothing. Wash skin with soap and water.

If swallowed
- Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

In case of skin contact:
Week irritation. Contact with the hot product may cause thermal burn.

In case of eye contact:
Lacrimation.

In case of intoxication by inhalation (respiration):
If high concentrations of aerosol inhaled – scratch in the throat, cough, rhinorrhea.

In case of per-oral intoxication (by ingestion):
Sickness, cough, rhinorrhea.

4.3 Further Medical Treatment
- Unlikely to be required but if necessary treat symptomatically.

5 FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
- Normal extinguishing media.

Unsuitable extinguishing media:
- no data available.

5.2. Specific hazards arising from the chemical
- Non-flammable. May decompose with liberation of hydrogen chloride if heated above 200 °C.

5.3. Advice for fire-fighters and Fire Fighting Protective Equipment:
- A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedure

Advice for non-emergency personnel:
- Spillages may be slippery.

Advice for emergency responders:
- Evacuate personnel to safe areas.
- Prevent further leakages and spillages, if it is safe to do.
- Avoid contact with incompatible substances.
- Adsorb spillages onto sand, earth or any other suitable adsorbent material.
- Ventilate the area.
- Wear suitable protective clothing.
6.2. Environmental precautions
- Avoid release to the environment.
- Do not flush into surface water or sanitary sewer system.
- Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3. Methods and materials for containment and cleaning up
- Collect and shovel into suitable containers for disposal.
- Keep in properly labelled containers.

6.4 Treat recovered material as described in the section 13 - "Disposal considerations".

7 HANDLING AND STORAGE

7.1. Precautions for safe handling
- Avoid contact with eyes.
- Avoid prolonged skin contact.
- Provide adequate ventilation where operational procedures demand it.
- Do not allow to enter drains, sewers or watercourses.

7.2. Conditions for safe storage, including incompatibilities
- Keep only in original container at temperatures not exceeding 40 °C.
- Keep container dry.
- Keep away from direct sunlight.

Substances incompatible at storage:
- Oxidizers, acids, alkalies.

Packaging material
Suitable material:
- Storage vessels should be made of lined mild, polyethylene containers.

Unsuitable material: Rubber.

7.3. Specific use(s)
- For further information, please contact: Supplier

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

8.1.1. Derived No Effect Level / Derived minimal effect level DNEL
DNEL long term for inhalation systemic effects, Workers \( \sim 1.6 \, \text{mg/m}^3 \)
DNEL long term for dermal systemic effects, Workers \( \sim 47.9 \, \text{mg/kg bw/day} \)
DNEL long term for inhalation systemic effects, general population \( \sim 2.0 \, \text{mg/m}^3 \)
DNEL long term for dermal systemic effects, general population \( \sim 28.75 \, \text{mg/kg bw/day} \)
DNEL long term for oral systemic effects, general population \( \sim 0.58 \, \text{mg/kg bw/day} \)

8.1.2. Predicted No Effect Concentration PNEC
PNEC aqua (freshwater) \( \sim 1 \, \mu\text{g/L} \)
PNEC aqua (marine water) \( \sim 0.2 \, \mu\text{g/L} \)
PNEC sediment (freshwater) \( \sim 13 \, \text{mg/kg sediment dw} \)
PNEC sediment (marine water) \( \sim 2.6 \, \text{mg/kg sediment dw} \)
PNEC soil \( \sim 11.9 \, \text{mg/kg soil dw} \)
PNEC sewage treatment plant \( \sim 80 \, \text{mg/L} \)
PNEC oral \( \sim 10 \, \text{mg/kg food} \)
8.2. Exposure controls

8.2.1. Appropriate engineering controls
- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.

8.2.2. Individual protection measures

Eye protection:
- Good working practice suggests goggles should be worn.

Skin and body protection:
- If prolonged or excessive skin contact is likely: Wear suitable protective clothing and gloves

Hands protection:
- Good working practice suggests gloves should be worn.

Respiratory protection:
- If splashing or mist is likely to occur: face protection.

Hygiene measures:
- Wash hands thoroughly before meals.
- Handle in accordance with good industrial hygiene and safety practice.

8.2.3. Environmental exposure controls
- Dispose of rinse water in accordance with local and national regulations.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Characteristics
- Molecular formula: C_{n}H_{2n+2-x}Cl_{x}, where n = 14-17, x = 1-7
- Molecular weight range: 370 – 481,5
- Physical state at 20°C and 101,3 kPa: C14-17 chlorinated paraffins are liquids of colorless to light-yellow color

Odour: Mildly unpleasant odour
Melting point/freezing point, °C: -15 °C - 0 °C
Boiling point, °C: 200-270
Relative density g/cm³ (at 20 °C): 1,095-1,26
Water solubility mg/l (at 20 °C): 0,027
Solvent solubility: Soluble in organic solvents
Vapour pressure: 1.3 x 10^{-9} – 2.7 x 10^{-7} Pa at 20°C.
Vapour density: No data
Partition coefficient: n-octanol/water (log value): Log Kow (Pow): 7 at 20 °C
Ignition temperature: 275 °C
Autoignition temperature: 374 °C
Viscosity: 90-12,000 mm²/s at 20°C and 25-1200 mm²/s at 40°C
Flash point: 210 °C at 101,3 kPa

9.2 Other information
Avoid long-term exposure of light and heating over 70 °C, as it may cause dechlorination. Avoid accidental contact with strong oxidizing agents.
10 STABILITY AND REACTIVITY

10.1 Reactivity:
- Can react with alkali metals and alkaline earth metals which have a strong affinity for chlorine.
- Can react with iron, zinc and aluminium at high temperatures leading to decomposition.

10.2. Chemical stability
- Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
- see item 10.6

10.4. Conditions to avoid:
- Strong oxidizing agents.
- long-term exposure of light, heat and hot surfaces.
- Mid Chain Chlorinated Paraffins tend to soften or swell most rubbers.

10.5. Incompatible materials
- Oxidizing agents, acids, alkalies;

10.6. Hazardous Decomposition Product(s)
- Prolonged heating at temperatures in excess of 70 ºC or heating above 200 ºC for short periods of time will result in decomposition and liberation of hydrogen chloride.

11 TOXICOLOGICAL INFORMATION

Acute toxicity indexes:
- DL50 = 21800 mg/kg, i.g., mice
- DL50 = 26100 mg/kg, i.g., rats
- DL50 = 40000 mg/kg, for mammals
- CL50 = not reached

In case of skin contact: Causes irritation
In case of eye contact: Causes irritation
In case of inhalation: The vapors of the product (aerosol) irritate strongly upper respiratory tract.

Sensitizing effect: Not considered to be a skin sensitizer.

Carcinogenicity Not classified
Mutagenicity Not classified
Toxicity for reproduction Not classified
Specific target organ toxicity - single exposure no data available
Specific target organ toxicity - repeated exposure not applicable

Extent of hazardous effect on human organism: Liquid paraffins have moderately toxic effect upon human organism. Low-toxic at ingestion. Acute intoxication is unlikely, persistent intoxication is possible. Inhalation of volatile products, formed as a result of heating chlorinated paraffins up to 100-150 ºC, causes fatty liver infiltration and dystrophic spleen modification of mice. Mouse tests didn’t detect cumulativeness.
12 ECOLOGICAL INFORMATION

12.1 Ecotoxicity
Acute toxicity for fish: CL50>300 mg/l, Salmo gairdnen 96 hours
Acute toxicity for invertebrates: EC>300 mg/l, 24 hours Daphnia magna.

Revealed effects on simulative ecosystem: CL50=10000mg/l, Nitocra spinipes, 96 hours.
12.2 Migration, environmental conversion: The product is not converted in the environment.
12.3 Bioaccumulative potential Not relevant
12.4 Mobility in soil Нет данных
12.5 PBT and vPvB assessment Chlorinated paraffins do not fulfill the PBT or the vPvB criteria.

12.6 Other adverse effects No data available

13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
- Wastes are collected and sent for disposal to places agreed with local, federal and national legislation.
- Do not allow to enter drains or environment.

13.2. Contaminated packaging
- Recovering is more likely than disposal or incineration, if possible.
- Wash container with hot water mixed with petroleum solvent and steam until complete removal of petrochemicals.
- Dispose it as unused product.
- According to local and national regulations.

14 TRANSPORT INFORMATION

-ICAO/IATA
UN number UN 3082
Class 9
Packing group III
Proper shipping name Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorinated paraffin, C14-17)

-IMDG
UN number UN 3082
Class 9
Packing group IMDG III
Marine pollutant Yes (P)
Proper shipping name Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorinated paraffin, C14-17)

-ADR/RID
UN number UN 3082
Class 9
Packing group III
Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorinated paraffin, C14-17)

- ADN
UN number: UN 3082
Class: 9
Packing group: III
Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorinated paraffin, C14-17)

15 REGULATORY INFORMATION
15.1. Applicable Laws or Regulations

15.2. Chemical safety assessment
A chemical safety assessment has been carried out for this substance.

16 OTHER INFORMATION
16.1. Training advice
Read the safety data sheet before using the product.

16.2 Recommended restrictions on use:
No restrictions at intended application.

16.3. Advice on using information stated in the safety data sheet
This SDS is only intended for the indicated country to which it is applicable. The European SDS format compliant with the applicable European legislation is not intended for use nor distribution in countries outside the European Union with the exception of Norway and Switzerland. Safety datasheets applicable in other countries/regions are available upon request.
The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment. Responsible executives, who receive this data sheet, must guarantee that every person, potential to use, treat, dispose or contact with the product in some other way, have read and understood the information de-
scribed here properly. Note that appearance and content of safety data sheets for the same product may vary in different countries to comply with requirements of different regulations.

**16.4. Reference literature**
