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|  | SAFETY DATA SHEET Prepared in compliance with the EU Regulation No 830/2015 | Preparation date: 21 February 2020 |
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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND IDENTIFICATION OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: **ORLEWAX 660**

Synonyms: -

CAS No: Not applicable - mixture

EC No: Not applicable - mixture

Index No: Not applicable

Registration No: Not applicable - mixture

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

Manufacture of the substance, intermediate in further production, distribution of the substance, formation and (re)packing of the substance and mixtures, coatings, anti-adhesive agents or adhesives, fertiliser industry, agents used in road-building and structures, manufacture and rubber production processes, plastic processing, lubricants, laboratories, explosives, spray (working) liquids, other consumer uses.

1.3. Details of the supplier of the safety data sheet

Manufacturer: **ORLEN Południe S.A.**

Address: ul. Fabryczna 22, 32-540 Trzebinia

Telephone/Fax: +48 24 201 00 00 / +48 24 367 74 14

E-mail: reach.poludnie@orlen.pl - Technology and Development

1.4. Emergency phone number:

State Fire Service: 998 or 112 (using a mobile phone)

Ambulance Service: 999 or 112 (using a mobile phone)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

| Classification \ Hazard | pursuant to Regulation (EC) No 1272/2008 (CLP)+ additional classification: |
|--------------------------------------------------|----------------------------------------------------------------------------|
| resulting from physical and chemical properties: | - |
| for humans: | - |
| for the environment: | - |

2.2. Marking elements

Pictogram: none

Hazard statement: none

Hazard identification statements: none

Precautionary statements: none

2.3. Other hazards

The mixture does not meet PBT or vPvB criteria in compliance with Annex XIII of the REACH Regulation.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable.

3.2. Mixture

ORLEWAX 660 is a mixture of solid petroleum hydrocarbons, mainly saturated, with simple and branched chains with carbon number higher than C20.

All substances forming part of composition of the ORLEWAX 660 mixture do not pose any hazard according to CLP Regulation. N note has been applied.

Based on N Note, the substance is not classified as carcinogenic since the full refining process is known. DMSO extract content <3% (according to IP 346).

All substances forming part of composition of the ORLEWAX 660 mixture have been registered in the REACH system or are exempt from relevant registration.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation:

Due to low volatility, inhalation risk is practically excluded although possible in the case of excessive overheating of the substance. Provide fresh air. If one does not feel well, ensure medical assistance.

Skin contact:

Wash an unprotected place of contact with water and soap.

Due to solid form (solidification point 62-69°C), contact with the hot product is possible. Cool down a place of contact with the hot product with cold water or ice.

Eye contact:

Rinse up open eyes with water for 15 minutes. If irritation occurs, get medical attention.

Swallowing:

Unexpected problems after swallowing. If one does not feel well, ensure medical assistance.

4.2. The most important symptoms and effects of exposure, both acute and delayed

While inhaling large amounts of vapours of the overheated product, symptoms of irritation of upper respiratory tract may occur.

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

Ensure fresh air and calm to an injured person.

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Foam, water fog, dry fire fighting powders, carbon dioxide, fire fighting foam. In the case of small fires - sand or earth.

Unsuitable extinguishing media: pressurised water jets.

5.2. Special hazards arising from the substance or mixture

| | |
|---------------------------|------------|
| Flash point | min. 200°C |
| Auto-ignition temperature | min. 250°C |
| Temperature class | T3 |
| Fire hazard class | III |

Flammable product after exceeding the flash point. Carbon dioxide is the major combustion product. Carbon monoxide is the combustion product in the case of an inappropriate amount of access to the combusted substance.

5.3. Advice for fire-fighters

In the case of a fire, inform all people around about the fire, remove everyone that does not take part in liquidation of effects of the incident

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from the hazardous area. Effect evacuation if necessary. Call the State Fire Service, rescue teams and the Police. Only trained persons wearing appropriate clothes and fitted with appropriate protective equipment can take part in the rescue action. Fire may release carbon monoxide, carbon dioxide and soot. Cover the formed vapours with water. In the hazardous area, do not stay without a breathing apparatus and protective suit. Avoid contact with eyes. Do not allow fire fighting water to reach surface water or ground water. Collect and neutralise fire fighting water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes, use a protective mask, protective clothes and footwear.

6.2. Environmental precautions

Secure drainage wells. Do not allow getting to the drainage system. If water is contaminated, notify relevant authorities.

6.3. Methods and materials for containment and cleaning up

Due to high solidification temperature, both large and small leakages solidify quickly, which facilitates their utilisation. Clean up the contaminated place. Collect using available equipment and place in a marked container for further recovery or storage in an appropriate place.

6.4. Reference to other sections

See also sections 8 and 13 of the Safety Data Sheet.

SECTION 7. HANDLING AND STORING THE SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

During performance of any activities with the product, use personal protective clothing and equipment. Keep far from ignition sources, heat and naked flame. In the place of using the substance and during its use do not eat, do not drink, do not smoke, avoid direct contact with the substance, avoid inhalation of dusts.

7.2. Conditions for safe storage, including any incompatibilities

Storage in solid form:

Storerooms must be dry and cool. The mixture should be stored in properly marked, tightly closed packaging resistant to hydrocarbons. Store containers in a legibly described form and tightly closed. If possible, use original manufacturer's packaging. Avoid contact with oxidising materials. Store far from heating elements and a source of fire. Avoid temperature above 40°C. Avoid accumulating the product on hot or energised machine parts. Protect against contact with moisture and water. Make efforts to protect the substance from getting into the ground and water.

Storage in liquid form:

Store the mixture at the temperature of not more than 80°C (it is advisable for the difference between the substance storage temperature and its solidification temperature not to be higher than 20°C) to avoid overheating. Empty, heated containers may contain flammable or explosive vapours. Use appropriate ventilation before entering inside the container to clean it up. Containers should be located far from sources of fire and oxidising materials, it is advisable to equip with extinguishing systems. It is advisable to locate the container in tanks protecting the leaking substance against getting into the ground or ground water.

In both cases pertaining to storage, avoid longer or repetitive contact of skin with the product or dirty clothing. If on skin: wash the contaminated place with plenty of water with soap. Do not use abrasive agents and petroleum solvents for washing the body. Immediately change the contaminated working clothes. Do not breathe in vapours.

7.3. Specific end use(s)

Intermediate in further production, distribution of the mixtures, formation and (re)packing of the mixtures, coatings, anti-adhesive agents or adhesives, fertiliser industry, agents used in road-building and structures, manufacture and rubber production processes, plastic processing, lubricants, laboratories, explosives, spray (working) liquids, other consumer uses.

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SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1. Control parameters

Solid paraffin - inhalable fraction

TLV-TWA: 2 mg/m³

TLV-STEL: not specified

TLV-CL: not specified

Regulation of the Minister of Labour and Social Policy of 12 June 2018 on the maximum permissible concentration and intensity of factors harmful to health in the working environment

8.2. Exposure control

8.2.1 Exposure control in the workplace.

While using the product, wash hands after each work connected with the mixture. While using the mixture, do not eat, do not drink and do not smoke.

The personal protective equipment must fulfil requirements stipulated in the Regulation of the Minister of Economy of 28 December 2005 (OJ No 259, item 2173) and Directive 89/686/EC (as amended). The employer is obliged to provide personal protective equipment appropriate to the activities performed and fulfilling all the qualitative requirements, as well as to maintain and clean it.

Protection of the airways Avoid contact with vapours, in the case of normal use exposure by the inhalation route is unlikely. Use mechanical ventilation at work stations and in closed rooms and buildings.

Hand protection Protective gloves resistant to oil, resistant to temperature. It is advisable to change gloves on a regular basis and to replace them immediately if any signs of their wear, damage (rupture, piercing) or changes in appearance (colour, elasticity, shape) occur.

Selection of the class of resistance to penetration depends on the time of exposure to the factor and it should be selected in accordance with standard EN 374. Thickness of gloves' layer is specified by a manufacturer based on the penetration exposure class. **Eye protection** Safety spectacles, protective masks.

Skin protection Protective clothes resistant to oil

8.2.2 Environmental exposure control

Prevent the product from getting into the soil, ground water and drainage system. In case of a leakage or, in the case of the solid product, in case of spilling, remove the product which got into the environment on an ongoing basis.

The mixture does not meet the classification criteria for the mixtures hazardous to the environment consistent with Directive 1999/45/EEC and with Regulation (EC) No 1272/2008 (CLP).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

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|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| a) Appearance | : Solid body below the solidification point, Liquid above the solidification point, colour: from yellow to brown |
| b) Odour | : Without odour or slight odour characteristic of solid hydrocarbons |
| c) Odour threshold | : No data - it is a subjective sensation and is not appropriate to warn against excessive danger |
| d) pH | : ~ 7 (water solution) |
| e) Solidification point (drop point) | : min. 62-69°C |
| f) Boiling point | : min. 300°C |
| g) Flash point | : min. 200°C |
| h) Evaporation rate | : Not studied |
| i) Flammability (of solid body, gas) | : Not classified as flammable |
| j) Upper/Lower flammability limits or Upper/Lower explosion limits | : Not studied |

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|------------------------------------------|----------------------------------------------------------------|
| k) Vapour pressure | : negligible in normal use conditions at 20°C, 0-20 Pa at 80°C |
| l) Vapour density | : Not studied |
| m) Relative Density | : approx. 755 kg/m ³ at 100°C |
| n) Solubility | : Any hydrocarbon solvents, not soluble in water |
| o) N-octanol/water partition coefficient | : Not studied |
| p) Auto-ignition temperature | : min. 250°C |
| q) Decomposition temperature | : Not studied |
| r) Viscosity | : 5.0 - 8.0 mm ² /s at 100°C |
| s) Explosive properties | : Not applicable - the product is not classified as explosive |
| t) Oxidising properties | : Not applicable - the product is not classified as oxidising |

9.2. Other information

None.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Low chemical reactivity of the product.

10.2. Chemical stability

The product is stable in advisable storage and use conditions.

10.3. Possibility of hazardous reactions: Unknown

10.4. Conditions to avoid:

Avoid sources of heat and fire. Avoid temperature above 80°C to avoid the product overheating or/and temperature above 180°C to avoid ignition of the mixture.

10.5. Incompatible materials

Strong oxidants.

10.6. Hazardous decomposition products

Unknown. Combustion products that present hazard - see section 5 of the Safety Data Sheet.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: does not exhibit any

LD50: >5000 mg/kg (orally, rat)

LD50: >2000 mg/kg (skin, rat)

Serious eye damage/irritation: does not exhibit any

Sensitising effect on respiratory tract or skin: respiratory tract effect is not expected but it is advisable to avoid breathing in vapours (of liquid paraffin) which may cause a respiratory tract irritation. None with regard to skin.

NOAEL: 1500 mg/kg of body weight/day (orally)

NOAEL: 2000 mg/kg of body weight/day (skin)

Germ cell mutagenicity: does not exhibit any

Carcinogenicity: does not exhibit any

NOAEL: 5700 mg/kg of body weight/day (orally)

NOAEL: 128 mg/kg of body weight/day (skin)

Reproductive toxicity: does not exhibit any

NOAEL: 1000 mg/kg of body weight/day (orally)

Specific target organ toxicity - single exposure: does not exhibit any

Specific target organ toxicity - repeated exposure: does not exhibit any

Aspiration hazard: does not exhibit any

The mixture is not classified in any hazard class. Based on available data, the classification criteria are not met.

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SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Aquatic environment:

Toxicity to fish: LC50 > 100mg/l/96h

Toxicity to daphnia: EL50 > 10000 mg/l

Toxicity to algae: NOEL ≥ 100 mg/L

12.2. Persistence and degradability

Limited biodegradability degree.

12.3. Bioaccumulative potential

Does not exhibit any.

12.4. Mobility in soil

No migration potential in soil.

12.5. Results of PBT and vPvB assessment

The substance does not meet PBT or vPvB criteria in compliance with Annex XIII of the REACH Regulation.

12.6. Other adverse effects

None.

SECTION 13. WASTE DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste code: **KO 05 01 99** – Wastes not otherwise specified

Do not dispose to sewage system. Prevent contamination of surface and ground waters. Consider reuse. Waste product must be recovered or utilised at authorised furnaces or waste recycling/neutralisation facilities, in accordance with the applicable regulations.

Recovery / recycling / utilisation of package waste should be performed according to the applicable regulations. CAUTION: Only completely emptied packages may be returned for recycling! Use services of authorised companies.

Act of 14 December 2012 on waste (OJ No 2013 item 21).

Act of 13 June 2013 on packaging and packaging waste management (OJ No 2013 item 888)

Regulation of the Minister of the Environment of 9 December 2014 on the waste catalogue (OJ 2014, item 1923)

SECTION 14. TRANSPORT INFORMATION

| | |
|--------------------------------------|----------------|
| 14.1. UN number | Not applicable |
| 14.2. UN proper shipping name | Not applicable |
| 14.4. Packing group | Not applicable |
| 14.5. Environmental hazards | Not applicable |

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14.6. Special precautions for users:

During loading, transport and unloading of the mixture in liquid form (solidification point < temperature of transported mixture < 100°C) it is necessary to remember about the risk of scalding oneself with the hot product. For this purpose, use protective gloves resistant to temperature, protective goggles, protective clothes. Scalded places must be immediately cooled down by means of water or ice. Ask for medical help.

14.7 Transport in bulk in accordance with Annex II to the MARPOL convention and the IBC code:

Not applicable

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental protection legal provisions, specific for the substance and mixture

Act of 25 February 2011 on chemical substances and mixtures thereof (OJ of 2011 No 63, item 322, as amended). Consolidated text (OJ 2018 item 143)

Regulation of the Minister of Labour and Social Policy of 12 June 2018 on the maximum permissible concentration and intensity of factors harmful to health in the working environment (OJ 2018 item 1286).

The Waste Act of 14 December 2012 (OJ 2013 item 21, as amended)

Act of 13 June 2013 on packaging and packaging waste management (OJ 2013 item 888, as amended)

Regulation of the Minister of the Environment of 9 December 2014 on the waste catalogue (OJ 2014, item 1923)

1907/2006/EC Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (corrigendum OJ L 136, 29.5.2007, as amended)

1272/2008/EC Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ EU L No 353, 31.12.2008, as amended)

2015/830/EU Commission Regulation No 2015/830/EU of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the registration, evaluation, authorisation and restriction of chemicals (REACH).

15.2. Chemical safety assessment

Attaching the chemical safety assessment is not required for the mixtures not classified as hazardous.

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SECTION 16. OTHER INFORMATION

Changes introduced by the update:

A change in the version of the Safety Data Sheet: Sections 8, 13 and 15 - An amendment to the binding legal act.

Abbreviations and acronyms in the Safety Data Sheet

| | |
|------------------|--------------------------------------------------------------------------------------------------|
| TLV-TWA | Threshold Limit Value, Time-Weighted Average |
| TLV-STEL | Threshold Limit Value, Short Term Exposure Limit |
| TLV-C | Threshold Limit Value - Ceiling |
| vPvB | very Persistent, very Bioaccumulative (substance) |
| PBT | Persistent, bioaccumulative, and toxic (substance) |
| PNEC | Predicted No Effect Concentration |
| DN(M)EL | Derived No Effect Level |
| LD ₅₀ | Dose that will kill 50% of test animals |
| LC ₅₀ | Concentration that will kill 50% of the test animals |
| EC _x | Concentration at which X % inhibition of growth or growth rate is observed |
| LOEC | Lowest Observed Effect Concentration |
| NOEL | No Observed Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| IMDG | International Maritime Dangerous Goods Code |
| IATA | International Air Transport Association |
| UVCB | Substances of Unknown or Variable composition, Complex reaction products or Biological materials |

References:

Legal provisions quoted in sections 2 - 15 of the Safety Data Sheet.
 Substance chemical safety report.

List of applicable hazard identification phrases, S-phrases or precautionary statements not specified in whole in sections 2 - 15 of the Safety Data Sheet

None.

Advice on training for staff members:

Staff members who use the product should be trained in risks for health, hygiene requirements, use of individual protection, accident preventive actions, rescue actions, etc.

The Safety Data Sheet has been prepared based on data provided by manufacturers of the product ingredients, national provisions, binding upon drawing up the Safety Data Sheet and existing knowledge. The information presented in the Sheet is to be taken only as help in safe use as well as handling during transport, distribution and storage. The Safety Data Sheet is not a quality certificate for the product. The information in the Safety Data Sheet relates to the above-mentioned product only and cannot be applied to similar products. The author is not responsible for incorrect use of information included in the Safety Data Sheet.