

GTL^{*)} Waxes

Product Stewardship Summary

CAS number:

8002-74-2

Chemical formula:

Not applicable, most GTL substances are considered to be Substances of Unknown or Variable composition, Complex reaction products or Biological materials (UVCB).

What are GTL Waxes?

GTL Waxes are synthetic paraffin waxes obtained from Fischer-Tropsch Synthesis of natural gas.

How are GTL Waxes used?

GTL Waxes are virtually odourless. They are used in applications requiring addition of colour or fragrances, such as printing inks, packaging, fiberboard, plastic processing, candles and coatings.

Health, Safety and Environmental considerations

GTL Wax is solid at room temperature and starts to melt at temperatures above 50 °C. It has a typical flashpoint of above 190 °C. It is not flammable according to UN GHS criteria, but will burn. It is neither self-reactive, nor self-heating and do not undergoes exothermic decomposition when heated.

Due to potential reactions with oxidizing materials GTL Waxes should be stored separately. The recommended storage temperature for molten wax should not exceed 20 °C above melting point and be protected with a nitrogen blanket. If wax is stored in solid form, a temperature of at least 20 °C below the melting point is recommended.

GTL Waxes are of low toxicity when inhaled, swallowed or in contact with skin in laboratory animals. No irritation of skin or eyes has been observed and there is no evidence of allergic skin reaction or respiratory sensitization from animal studies. Contact with hot material can cause thermal burns resulting in skin or eye damage. Inhalation of vapours or fumes may cause respiratory irritation, when working with hot product. In that situation, an occupational exposure limit (OEL) for petroleum wax fumes at the workplace of 2 mg/m³ based on the recommendation of the American Congress of Governmental Hygienists (ACGIH) should not be exceeded. Appropriate personal protection equipment as well as procedures for safe handling and risk management controls as described in the current Shell Lubricant Safety Data Sheet should be applied.

Kinematic viscosities of this material can only be measured at elevated temperatures, for example 100 °C. Therefore, GTL Waxes do not pose an aspiration hazard.

It can be concluded from studies on the mutagenic potential of GTL products that they are not considered to be germ cell mutagens or carcinogens. There is no evidence or any indication of developmental and reproductive toxicity with GTL waxes.

Based on the above this material is not classified according to UN GHS criteria.

The product is poorly soluble in water and will float on water. **Based on predicted data and read across to petroleum products with similar composition GTL** waxes are considered to be practically non-toxic.

GTL Waxes are UVCB substances (see explanation under "Chemical formula"). Based on the available compositional information, measured and predicted data it can be concluded that the major constituents are inherently biodegradable and have a bio-accumulation potential.

Following UN GHS criteria, GTL Waxes is not classified for environmental hazards.

This material is solid or semi-solid under normal conditions at room temperature and if enters soil it will quickly adsorb to soil particles, be of low or no mobility and not contaminate ground water.

The health, safety and environmental considerations above are not applicable for used product, as this may contain more hazardous substances present as a consequence of different applications of this wax, for which specific additives or other substances may have been introduced.

Storing and transporting GTL Waxes

GTL Waxes are transported by ship, road and rail.

The temperature during storage and transportation should not exceed 20 °C above the congealing point.

Precautionary measures against static discharges as well as the very low risk of dust formation (more likely during manufacture or end use in particle sizes below 420 µm) in case of small particles must be undertaken during loading and unloading and all operators must wear personal protective equipment.

Storage tanks should be made from mild steel.

Risk Characterization Summary

Risks associated with exposure to these products have been evaluated for the following "chain-of-commerce" activities: manufacture, storage, product transfer, transportation, and customers / markets. They are manufactured, stored and transported to customers in closed

systems. Product is considered to pose low risk in all applications due to the non-hazardous nature of the product.

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the chemical's applicable [Safety Data Sheet](#), which should be consulted before use of the chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.

Shell Process Oils linked to CAS number: 8002-74-2

- GTL Sarawax SX 50
 - GTL Sarawax SX 70
 - GTL Sarawax SX 105
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*) GTL: Gas-To-Liquids; conversion of natural gas into middle distillates, solvents or waxes using the Fischer-Tropsch process



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