

GLOBAL PRODUCT STRATEGY SAFETY SUMMARY

KALCOL 4098

This document is a high-level summary provides usage of chemical substances and safety information to the general public. It is not intended to replace the Safety Data Sheet, which is available from suppliers and should be referred to for full details of recommended safety procedures for each type of use. It is not intended to replace or supersede manufacturer's instructions and warnings for their consumer products containing this substance.

1. Substance Identity

Brand Name: KALCOL 4098

Chemical Name: Myristyl alcohol

CAS Number: 112-72-1

2. Uses and Applications

KALCOL 4098 is a long-chain aliphatic alcohol. It is used in cosmetics and quasi-drugs due to its emulsion stabilizing properties.

In industry, KALCOL 4098 is mainly used as an intermediate for chemical synthesis.

3. Physical/Chemical Properties

KALCOL 4098 has no identified physicochemical hazards.

Property	Value
Physical state	Solid
Color	White
Odour	Slight characteristic odor
pH	No information available
Density	0.8224 g/mL (40°C)(104°F)
Melting point	37-40°C(99-104°F)

Boiling point	296°C(565°F)
Flash point	156°C(313°F) (Cleveland open cup)
Flammability	No information available
Upper/lower limit on flammability or explosive limits	Explosive limit - upper: 4.2%(V) Explosive limit - lower: 0.5%(V)
Self – ignition temperature	>100°C(>212°F)
Vapour pressure	No information available
Water solubility	Insoluble
Octanol-water partition coefficient (log K _{ow})	No information available
Viscosity	16 mPa·s (40°C)(104°F)

4. Human Health Safety Assessment

Consumer: The exposure to KALCOL 4098 is at safe levels.

Worker: The repeated exposure of KALCOL 4098 does not cause any toxic effects.

Effect Assessment	Result
Acute Toxicity oral/ dermal	Virtually not toxic after oral or dermal exposure. Not identified to have specific target organ toxicity after single exposure.
Irritation skin/ eye	Causes serious eye irritation.
Sensitization	No sensitizer.
Toxicity after repeated exposure Oral / inhalation / dermal	Virtually not toxic after oral, inhalation or dermal exposure. Not identified to have specific target organ toxicity after repeated exposure.
Genotoxicity / Mutagenicity	Not mutagenic.
Carcinogenicity	Not considered carcinogenic based on data derived from studies on repeated exposure.
Toxicity for reproduction	Based on available data no developmental or reproductive toxicity is anticipated.

5. Environmental Safety Assessment

The test results with fish, aquatic invertebrates and algae suggest that KALCOL 4098 could cause a strong toxicity to aquatic organisms with long lasting effects. However, KALCOL 4098 is unlikely to persist in the environment because of showing the readily biodegradation. KALCOL 4098 does not bioaccumulate in the food chain.

Effect Assessment	Result
Aquatic Toxicity	Based on the available data, likely to cause strong toxicity to aquatic life with long lasting effects

Effect Assessment	Result
Biodegradation	Readily biodegradable.
Bioaccumulation potential	Not bioaccumulative
PBT/ vPvB conclusion	Not considered to be PBT or vPvB.

6. Exposure

Consumer

The consumer can come into contact with KALCOL 4098 in use of cosmetic products, but the concentration of KALCOL 4098 in use is below the level which would give rise harmful effects of concern. When it's used as the recommended use, consumer should always read product information before use and follow the label/ use instructions.

Worker

The exposure can occur either in KALCOL 4098 manufacturing facilities or in the various industrial facilities when KALCOL 4098 is used. Those workers in industrial operations during maintenance, sampling, testing, or other procedures could be exposed with KALCOL 4098. Only qualified and trained workers handle the undiluted substance. The manufacturing facilities offer thorough training program for employees and appropriate work processes, as well as safety equipment (goggles and gloves) in place to prevent an unnecessary exposure. Safety showers and eye-wash stations are accessible nearby. Workers are required to be trained in accordance with the safety measures in the Safety Data Sheet.

Environment

Since this substance is used extensively, it is discharged to waste water treatment plants from industrial sites such as manufacturing, preparation, handling, storage and use of the substance as well as from consumer households. However, the substance is readily biodegradable, so that it is removed efficiently in waste water treatment plants. The substance is biologically degraded in the surface water and is rapidly removed even if it is remained slightly in the waste water. Hence, the chronic exposure to aquatic organisms of the substance is unlikely to occur. Furthermore, the substance does not accumulate in the food chain, so that there is no concern of human exposure through environmental pathway.

7. Risk management recommendations

When you use the substance, make sure to be measured the adequate ventilation. Always use appropriate chemical-resistant gloves to protect your hands and skin and always wear eye protection equipment. Do not eat, drink or smoke where the substance is handled, processed or stored. Wash hands and skin after contact with the substance. When the substance attaches to skin (or hair), take off the contaminated clothes. Wash with a large amount of water and soap. When it causes your skin irritation, consult doctor (medical diagnosis/therapy). If the substance gets into your eyes, rinse your eyes thoroughly for several minutes. If you wear contact lens, and you can take it off easily, take it off and continue to rinse your eyes. Contact to a doctor immediately.

Waste water containing the substance must be passed the waste water treatment plants in order to remove the substance. No specific measures are needed, because it is not expected to be released into the air.

8. Regulatory Information / Classification and Labelling

Under GHS classification chemical substances are classified in hazards for physical properties, human health and environment. The hazard information for industrial products are transmitted via specific labels and Safety Data Sheet. GHS offers the standardization for hazard communication. The subjects who could be assumed to be exposed to the substance, workers, consumers, transport workers, and emergency responders, can better understand the hazards of the chemicals in use through the transmission.

Labeling according to UN GHS

UN GHS is the basis for country specific GHS labeling.
KALCOL 2098 is assigned to following GHS classification.



Classification and labelling information

Eye Dam. 2A
Aquatic Chronic 1

Hazard Statements:

H319: Causes serious eye irritation
H412: Very toxic to aquatic life with long lasting effects

Signal Word

Warning

The laws of manufacturing, sale, transport, use and disposal are different among countries or areas. Details are referred to Safety Data Sheet provided by the supplier.

9. Conclusion

If exposure to high concentrations in the environment occurs, KALCOL 4098 is suggested to cause strong toxicity to aquatic organisms. But there is no concern to the environmental organisms due to the rapid biodegradation of KALCOL 4098. In the PBT/vPvB assessments for KALCOL 4098, the substance is not applicable to PBT/vPvB. When handling the substance, workers should follow the standard safety measures and refer to the Safety Data Sheet. Consumers will usually not come into contact with the substance bulk and the substance is used diluted products, therefore, it is considered that KALCOL 4098 gives rise no hazardous effects to human health.

10. Contact information within company

For further information on this substance or product safety summaries in general, please contact:

Name	Kao Corporation, Global Chemical Business
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Additional information can be found at a chemical risk assessment support portal provided by the Japan Chemical Industry Associations, found at <https://www.jcia-bigdr.jp/jcia-bigdr/en/top>.

11. Glossary

Acute Toxicity	Adverse effects that result from a single exposure
Sensitization	Inducibility of allergy
Genotoxicity	Effects to induce gene mutations
Carcinogenicity	Action influence to cause a cancer
Toxicity for Reproduction	Adverse effects for teratogenicity, embryotoxicity, and reproductivity
Biodegradation	Biological degradation of a substance in environments
PBT (Persistent, Bioaccumulative and Toxic)	Substances that are environmentally persistent, bioaccumulative, and toxic
vPvB (Very Persistent and Very Bioaccumulative)	Substances with high persistence in the environment and high accumulation in ecology
GHS	Globally Harmonized System of Classification and Labelling of Chemicals

12. Date of issue

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