

GLOBAL PRODUCT STRATEGY SAFETY SUMMARY

KAO AKYPO RLM-45NV

This document is a high-level summary intended to provide the general public with an overview of product safety for this substance. 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: KAO AKYPO RLM-45NV

Chemical Name: Sodium polyoxyethylene(4.5) lauryl ether carboxylate (Main component)

CAS Number: 33939-64-9 (Main component)

2. Uses and Applications

KAO AKYPO RLM-45NV is an anionic surfactant. It is mainly used in a body cleansing agent and others.

For the industrial use, KAO AKYPO RLM-45NV is mainly used as aqueous cleaner, and others.

3. Physical/Chemical Properties

KAO AKYPO RLM-45NV has no identified physicochemical hazards.

Property	Value
Physical state	Liquid
Colour	Light yellow clear
Odour	Characteristic odour
pH	No information available

Density	1.022 g/mL (10 °C) (50 °F) 1.018 g/mL (20 °C) (68 °F)
Melting point	No information available
Boiling point	No information available
Flash point	Not applicable
Flammability	No information available
Explosive properties	No information available
Self – ignition temperature	No information available
Vapour pressure	No information available
Water solubility	Soluble
Octanol-water partition coefficient (log K _{ow})	No information available
Viscosity	35 mPa·s (10 °C) (50 °F) 18 mPa·s (20 °C) (68 °F) 15 mPa·s (40 °C) (104 °F)

4. Human Health Safety Assessment

Consumer: The exposure to KAO AKYPO RLM-45NV is at safe levels.

Worker: The repeated exposure of KAO AKYPO RLM-45NV does not cause any toxic effects

Effect Assessment	Result
Acute Toxicity oral/ dermal	No acute toxicity after oral/ dermal exposure in practical use The substance does not cause damage to any organs following single exposure
Irritation skin/ eye	Undiluted substance causes skin irritation Causes serious eye irritation ※
Sensitization	Based on the available data, unlikely to cause allergic skin reaction ※
Toxicity after repeated exposure	Unlikely to cause any toxic effects through prolonged or repeated oral exposure in practical use ※
Mutagenicity	Based on the available data, unlikely to cause genetic defects ※
Carcinogenicity	Based on the available data, unlikely to cause cancer ※
Toxicity for reproduction	Based on the available data, unlikely to be damaging to fertility or the unborn child ※

※ Judgement from the information on a similar substance

5. Environmental Safety Assessment

The test results with fish, aquatic invertebrates and algae suggest that KAO AKYPO RLM-45NV could cause toxicity to aquatic organisms. However, KAO AKYPO RLM-45NV is unlikely to persist in the environment because of showing the readily biodegradation. KAO AKYPO RLM-45NV is unlikely to cause bioaccumulation by the food chain, because KAO AKYPO RLM-45NV is not PBT/ vPvB.

Effect Assessment	Result
Aquatic Toxicity	Based on the available data, likely to cause toxicity to aquatic organism ※
Biodegradation	Readily biodegradable ※
PBT/ vPvB conclusion*	Not persistent in the environment, not bioaccumulating in organisms and not toxic nor very persistent and very bioaccumulating ※

※ Judgement from the information on a similar substance

*PBT=Persistent, Bioaccumulative and Toxic

vPvB=Very Persistent and Very Bioaccumulative

6. Exposure

Consumer

The consumer can come into contact with the substance in use of the body cleansing agent, and others, but the concentration of KAO AKYPO RLM-45NV 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 KAO AKYPO RLM-45NV manufacturing facilities or in the various industrial facilities when KAO AKYPO RLM-45NV is used. Those workers in industrial operations during maintenance, sampling, testing, or other procedures could be exposed with KAO AKYPO RLM-45NV. 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 even if it 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 by the food chain, and there is no concern to human health by the exposure of the substance through environmental pathway.

7. Risk management recommendations

When you use the substance, make sure to be measured the adequate ventilation. Always wear appropriate 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. Wash hands and skin with a large amounts of water and soap, when the substance attaches to skin (or hair). 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. When it causes your skin irritation or eye irritation, seek medical advice/attention.

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.

KAO AKYPO RLM-45NV may be assigned to following GHS classification.



Classification and Labeling Information

Skin Irrit. 2

Eye Dam. 2

Aquatic Acute 2

Hazard Statements:

H315: Causes skin irritation

H319: Causes serious eye irritation

H401: Toxic to aquatic life

Signal Word

Caution

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

Though KAO AKYPO RLM-45NV is suggested to cause toxicity to aquatic organisms, there is no concern to the environmental organisms due to the rapid biodegradation of KAO AKYPO RLM-45NV. In the PBT/vPvB assessments for KAO AKYPO RLM-45NV, the substance is not PBT/vPvB. Contact with the undiluted KAO AKYPO RLM-45NV may cause irritation to the skin and serious irritation to the eyes. 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 KAO AKYPO RLM-45NV 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
Telephone number +81-3-5630-7700
Fax number +81-3-5630-7889
E-mail address chemical@kao.co.jp

Additional information can be found at the International Council of Chemical Associations portal, found at <http://www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/>.

11. Glossary

Acute Toxicity	Adverse effects that result from a single exposure
Biodegradation	Biological degradation of a substance in environments
Bioaccumulation	Accumulation of substances in environments
Carcinogenicity	Action influence to cause a cancer
Toxicity after repeated exposure	Adverse effects that result from repeated exposure
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
Hazard	Hazardous property for human health or environments
Mutagenicity	Effects to induce gene mutations
Toxicity for reproduction	Adverse effects for teratogenicity, embryotoxicity, and reproductivity
Sensitization	Inducibility of allergy

12. Date of issue

Dec. 14, 2017