

GLOBAL PRODUCT STRATEGY SAFETY SUMMARY

QUARTAMIN 60W

This document is a high-level summary that 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 manufacturers' instructions and warnings for their consumer products containing this substance.

1. Substance Identity

Brand Name: QUARTAMIN 60W

Chemical Name: Cetyl trimethyl ammonium chloride

CAS Number: 112-02-7

2. Uses and Applications

QUARTAMIN 60W is a cationic surfactant. It is used in laundry detergents, shampoos, and hairdressing products because of its antistatic and softening effects by adsorbing on negatively charged surfaces.

For the industrial use, QUARTAMIN 60W is mainly used as an emulsifier and adjuster of emulsion polymerization, and others.

3. Physical/Chemical Properties

QUARTAMIN 60W has no identified physicochemical hazards.

Property	Value
Physical state	Liquid
Color	Pale Yellow clear
Odor	Slightly characteristic odour

pH	7 (10% solution)
Density	0.972 g/mL (30 °C) (86 °F) 0.969 g/mL (40 °C) (104 °F) 0.966 g/mL (50 °C) (122 °F)
Freezing point	-20 °C (-4 °F)
Boiling point	No information available
Flash point	Not detected
Flammability or Explosive properties	No information available
Self – ignition temperature	No information available
Vapour pressure	No information available
Water solubility	Very Soluble
Octanol-water partition coefficient (log K _{ow})	No information available
Viscosity	9 mPa·s (40 °C) (104 °F)

4. Human Health Safety Assessment

Consumer: There is no exposure to hazardous concentration levels of QUARTAMIN 60W.
Worker: Based on available data, repeated exposure associated with handling operations with QUARTAMIN 60W does not cause any toxic effects.

Effect Assessment	Result
Acute Toxicity oral/ dermal	Harmful if swallowed. Undiluted substance is toxic when in contact with skin The substance does not cause damage to any organs following single exposure
Irritation skin/ eye	Undiluted substance causes strong skin irritation Causes serious eye damage
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

5. Environmental Safety Assessment

The test results with fish, aquatic invertebrates and algae suggest that QUARTAMIN 60W could cause a strong toxicity to aquatic organisms if exposure to high concentrations in the environment occurs. In addition, it could also cause a strong toxicity to aquatic organisms with long-lasting effects. However, QUARTAMIN 60W is considered a low risk to the environment

because it is readily biodegradable and does not persist in the environment. QUARTAMIN 60W does not bioaccumulate in the food chain.

Effect Assessment	Result
Aquatic Toxicity	Based on the available data, likely to cause a strong toxicity to aquatic organisms if exposure to high concentrations in the environment occurs Likely to cause a strong toxicity to aquatic life with long lasting effects
Biodegradation	Readily biodegradable
PBT/ vPvB conclusion	Not persistent in the environment, not bioaccumulating in organisms and not toxic nor very persistent and very bioaccumulating

6. Exposure

Consumer

Consumers can come into contact with QUARTAMIN 60W through the use of laundry detergents and cosmetic products, but the concentration of QUARTAMIN 60W in use is below the level which would give rise harmful effects of concern. When products are used as recommended, consumers should always read the product information and follow the label or instructions.

Worker

The exposure can occur either in QUARTAMIN 60W manufacturing facilities or in the various industrial facilities when QUARTAMIN 60W is used. Those workers in industrial operations during maintenance, sampling, testing, or other procedures could be exposed to QUARTAMIN 60W. Only qualified and trained workers handle the undiluted substance. The manufacturing facilities offer a 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 wastewater treatment facilities 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 wastewater treatment plants. The substance is biologically degraded in the surface water and is rapidly removed even if trace amounts of the substance remain in wastewater. 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

Adequate ventilation should be provided when QUARTAMIN 60W is used in manufacturing facilities or in the various industrial facilities. Always use appropriate chemical-resistant gloves to protect your hands and skin and always wear eye protection equipment. Wash hands and skin after contact with the substance. Do not eat, drink or smoke where the substance is handled, processed or stored. If this substance gets on your clothing, take off the contaminated clothes. When the substance attaches to skin (or hair), wash with a large amount of water and soap. If it causes skin irritation, seek medical advice/attention. If the substance gets into your eyes, rinse your eyes thoroughly for several minutes. If you wear contact lenses, and you can take them off easily, take them off and continue to rinse your eyes. If eye irritation persists, get medical advice/attention.

Waste water containing the substance must be passed through the wastewater treatment facilities 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.

QUARTAMIN 60W may be assigned to the following GHS classification.



Classification and Labeling Information

Acute tox. - Oral 4

Acute tox. - Dermal 3

Skin irrit. 1

Eye dam. 1

Aquatic Acute 1

Aquatic Chronic 1

Hazard Statements:

H302: Harmful if swallowed

H311: Toxic in contact with skin

H314: Causes severe burns and eye damage

H318: Causes serious eye damage
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects

Signal Word

Danger

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

9. Conclusion

QUARTAMIN 60W is suggested to cause a strong toxicity to aquatic organisms if exposure to high concentrations in the environment occurs. In addition, it could also cause a strong toxicity to aquatic organisms with long-lasting effects. However, QUARTAMIN 60W is considered a low risk to the environment because it is readily biodegradable and does not persist in the environment. In the PBT/vPvB assessments for QUARTAMIN 60W, 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 in bulk, and because it is used in diluted form in consumer products, QUARTAMIN 60W is considered to have low concern for adverse effects on 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
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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://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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