

## GLOBAL PRODUCT STRATEGY SAFETY SUMMARY

### POIZ 520

*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: POIZ 520

Chemical Name: Acrylic acid/maleic anhydride copolymer sodium salt

CAS Number: 52255-49-9

#### 2. Uses and Applications

POIZ 520 is a polycarboxylic acid type surfactant. It is used as dishwash detergents. For the industrial use, POIZ 520 is mainly used as a dispersant for paper, pulp, paint etc., and used as a dispersant for chemical processes.

#### 3. Physical/Chemical Properties

POIZ 520 has no identified physicochemical hazards.

Property	Value
Physical state	Viscous liquid
Colour	Pale yellow
Odour	Almost odourless
pH	8.2 (Undiluted solution)
Density	1.3 g/mL (20 °C) (68 °F) 1.29 g/mL (60 °C) (140 °F)

Melting point (Pour point)	-15 °C (5 °F)
Boiling point	102-103 °C (215.6 - 217.4°F)
Flash point	Not applicable
Flammability or Explosive properties	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 <sub>ow</sub> )	No information available
Viscosity	450 mPa·s (20 °C) ( 68 °F) 250 mPa·s (30 °C) ( 86 °F) 120 mPa·s (50 °C) (122 °F)

#### 4. Human Health Safety Assessment

The Short-term and repeated exposure of POIZ 520 does not cause any toxic effects.

Effect Assessment	Result
Acute Toxicity oral/ dermal	No acute toxicity after oral/ dermal exposure. The substance does not cause damage to any organs following single exposure
Irritation skin/ eye	Based on the available data, unlikely to cause skin irritation and 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

#### 5. Environmental Safety Assessment

The test results with fish, aquatic invertebrates and algae suggest that POIZ 520 is not to cause toxicity for aquatic organism. From the information of general polymer, it seems to be not readily biodegradable, but it is considered to be removed by sewage treatment etc. It is not bioaccumulative because of high molecular weight of polymer.

Effect Assessment	Result
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Effect Assessment	Result
Aquatic Toxicity	Suggests not to cause toxicity for aquatic organism.
Biodegradation	It seems to be not readily biodegradable.
PBT/ vPvB conclusion*	Not considered to be either PBT nor vPvB.

\*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 detergents, but the Short-term and repeated exposure of POIZ 520 does not cause any toxic effects. 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 POIZ 520 manufacturing facilities or in the various industrial facilities when POIZ 520 is used. Those workers in industrial operations during maintenance, sampling, testing, or other procedures could be exposed with POIZ 520. 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

POIZ 520 is discharged to wastewater treatment plants from industrial sites such as manufacturing, preparation, handling, storage and use of the substance as well as from consumer households. However, this material is considered to be efficiently removed at the wastewater treatment plants. Even if it remains slightly in the wastewater, it is considered not toxic to aquatic organisms. Furthermore, this 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. 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, consult doctor (medical diagnosis/therapy).

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.

### Classification and Labeling Information

POIZ 520 is not classified as a substance that has a harmful effect on humans or the environment.

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

POIZ 520 is thought to be not readily biodegradable, but environmental risks are not considered to be a concern because it is efficiently removed at wastewater treatment plants and does not exhibit toxicity to aquatic organisms. Although POIZ 520 is not considered to exhibit toxicity due to short-term and repeated exposure, workers need to refer to Safety Data Sheet according to standard safety measures. Consumers are not considered to have a risk in use.

## 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

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

## 12. Date of issue

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