



Australian Government

Department of Health and Aged Care

Australian Industrial Chemicals Introduction Scheme

Siloxanes and Silicones, di-Me, vinyl group-terminated, polymers with alkyl acrylate and branched alkyl acrylate

Assessment statement (CA09591)

2 April 2024



Table of contents

AICIS assessment statement (CA09591)	3
Chemical in this assessment.....	3
Reason for the assessment	3
Certificate Application type	3
Defined scope of assessment	3
Summary of assessment	3
Summary of introduction, use and end use.....	3
Human health.....	3
Environment.....	4
Means for managing risk.....	5
Conclusions	5
Supporting information	6
Chemical identity	6
Relevant physical and chemical properties	6
References	7

AICIS assessment statement (CA09591)

Chemical in this assessment

AICIS Approved Chemical Name (AACN)

Siloxanes and Silicones, di-Me, vinyl group-terminated, polymers with alkyl acrylate and branched alkyl acrylate

Reason for the assessment

An application for an assessment certificate under section 31 of the *Industrial Chemicals Act 2019* (the Act)

Certificate Application type

AICIS received the application in a Very Low to Low Risk type.

Defined scope of assessment

The chemical has been assessed:

- as a polymer meeting the polymer of low concern (PLC) definition (Schedule 2 of the *Industrial Chemicals (General) Rules 2019*) and
- as a polymer that is not a high molecular weight polymer that has lung overloading potential (within the meaning given by the *Industrial Chemicals Categorisation Guidelines*)
- as a component of lubricants

Summary of assessment

Summary of introduction, use and end use

The assessed polymer will be imported as a lubricating agent into Australia at up to 12 tonnes per year and at a concentration of up to 40% for reformulation. The end use concentration of the polymer will be at up to 0.05% in lubricant products.

Human health

Summary of health hazards

No toxicology data were provided for the assessed polymer. The assessed polymer meets the PLC definition and is thus assumed low hazard. No hazard classifications for the polymer are required according to the *Globally Harmonized System of Classification and Labelling of Chemicals* (GHS, UNECE 2017), as adopted for industrial chemicals in Australia.

Summary of health risk

This assessment does not identify any risks to public health and workers that would require specific risk management measure.

The assessed polymer contains residual monomers that are classified as hazardous according to the GHS criteria. However, the hazardous residual monomers in the assessed polymer are below the GHS cut-off concentration for hazard classification.

Environment

Summary of environmental hazard characteristics

According to domestic environmental hazard thresholds and based on the available data the polymer is:

- Persistent (P)
- Not bioaccumulative (Not B)
- Not toxic (Not T)

Environmental hazard classification

No ecotoxicology data were provided for the assessed polymer. The assessed polymer meets the PLC definition and is thus assumed low hazard. The polymer is therefore not classified for environmental hazards according to the *Globally Harmonized System of Classification and Labelling of Chemicals* (GHS, UNECE 2017), as adopted for industrial chemicals in Australia. The hazardous residual monomers in the assessed polymer are below the GHS cut-off concentration for hazard classification.

Summary of environmental risk

No significant release of the assessed polymer is expected to occur as a result of its use as a component in lubricant products. A predicted environmental concentration was not calculated, however, if the assessed polymer is released to the environment a large portion of the released polymer is expected to adsorb and partition to soil and sediment (US EPA 2013). The assessed polymer is expected to share the fate of the lubricant product and be reclaimed and recycled or disposed of according to federal and local regulations at the end of its useful life. The assessed polymer will be made available for consumer use but the potential risks are considered to be exceptionally low due to its intrinsically non-hazardous nature and the exposure control in place.

No environmental hazard information was supplied for the assessed polymer. The polymer is assumed to be persistent. The polymer is expected to have low bioavailability based on a number average molecular weight (> 1,000 g/mol). The polymer is not expected to bioaccumulate based on its low bioavailability. It is not expected to cause toxic effects in aquatic organisms based on its low bioavailability and absence of reactive functional groups.

No risks to the environment have been identified that would require specific risk management measures.

Means for managing risk

The information in this statement should be used by a person conducting a business or undertaking at a workplace (such as an employer) to determine the appropriate controls under the relevant jurisdiction Work Health and Safety laws.

Conclusions

The Executive Director is satisfied that the risks to human health and the environment from the introduction and use of the industrial chemical can be managed.

Note:

1. Obligations to report additional information about hazards under Section 100 of the *Industrial Chemicals Act 2019* apply.
2. You should be aware of your obligations under environmental, workplace health and safety and poisons legislation as adopted by the relevant state or territory.

Supporting information

Chemical identity

AACN

Siloxanes and Silicones, di-Me, vinyl group-terminated, polymers with alkyl acrylate and branched alkyl acrylate

Chemical description

The assessed chemical is a polymer of low concern.

Relevant physical and chemical properties

Physical form

Liquid, colourless to pale yellow

Water solubility

1.753 mg/L

References

UNECE (United Nations Economic Commission for Europe) (2017) Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 7th Revised Edition, UNECE

US EPA (2013), Interpretive Assistance Document for Assessment of Polymers, URL: [Interpretive Guidance Document \(epa.gov\)](#) (accessed on 28 March 2024)

