



Australian Government

Department of Health

Australian Industrial Chemicals Introduction Scheme

# **2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C<sub>10-16</sub>-alkyloxy)methyl]oxirane-quaternized, benzoates (salts)**

**Evaluation statement**



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# AICIS evaluation statement

## Subject of the evaluation

2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C<sub>10-16</sub>-alkyloxy)methyl]oxirane-quaternized, benzoates (salts)

## Chemical in this evaluation

Name	CAS registry number
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C <sub>10-16</sub> -alkyloxy)methyl]oxirane-quaternized, benzoates (salts)	1428963-39-6

## Reason for the evaluation

New information is available about the chemical's identity.

## Parameters of evaluation

AICIS was notified that the chemical 2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C<sub>10-16</sub>-alkyloxy)methyl]oxirane-quaternized, benzoates (salts) (CAS No 1428963-39-6) was wrongly added to the Inventory as a result of misidentification of the chemical structure at the time of the assessment.

This evaluation is to determine the correct identity of the chemical to determine whether a different industrial chemical should have been listed on the inventory instead of the chemical that was misidentified. This evaluation is also to find out whether the wrongly included chemical should be removed from the Inventory.

## Summary of evaluation

### Summary of chemical identity

Based on the new information provided, the misidentification of the chemical was caused by the incorrect addition of dicarboxylic acid substructure (formed by hydrolysis of the anhydride group) to the originally submitted structural formula during the assessment. The CAS number and CAS name allocated to the polymer by CAS Services during the Inventory listing process appears to be based on this amended but erroneous structural formula.

The currently listed chemical name includes the word "hydrolyzed" implying that after imide formation water is intentionally added to hydrolyse any remaining anhydride groups.

However, it is clear from the current information that hydrolysis is just a side reaction and therefore “hydrolyzed” should not be included in the polymer name. The correct listing for the industrial chemical should have been 2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C<sub>10-16</sub>-alkyloxy)methyl]oxirane-quaternized, benzoates (salts) (CAS No 1431957-88-8). Given this is the name of the submitted structure formula in the original application, there is no change to the original human health and environmental risk assessment.

While the correct CAS number 1431957-88-8 is listed in several inventories, the incorrect CAS number 1428963-39-6 is only listed in the Australian Inventory.

## Conclusions

An evaluation for the chemical 2,5-furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C<sub>10-16</sub>-alkyloxy)methyl]oxirane-quaternized, benzoates (salts) (CAS No 1428963-39-6) was completed under Part 4 of the Industrial Chemicals Act 2019 (IC Act).

Public consultation was conducted as part of this evaluation. No comments were received that identified the introduction of CAS No. 1428963-39-6.

The Executive Director is satisfied that:

- the industrial chemical represented by the CAS name and number shown in Table 1 should have been listed on the inventory instead of the industrial chemical represented by the CAS name and number shown in Table 2.
- the industrial chemical represented by the CAS name and number shown in Table 2 has been wrongly listed on the Inventory.

Therefore, the correct industrial chemical will be listed to the Inventory under section 84(2) of the Industrial Chemicals Act and the misidentified chemical be removed under section 95 of the Industrial Chemicals Act 2019.

**Table 1 - Chemical to be added to Inventory**

Name	Molecular Formula	CAS registry number
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C <sub>10-16</sub> -alkyloxy)methyl]oxirane-quaternized, benzoates (salts)	Unspecified	1431957-88-8

**Table 2 - Chemical to be removed from Inventory**

Name	Molecular Formula	CAS registry number
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, hydrolyzed, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C <sub>10-16</sub> -alkyloxy)methyl]oxirane-quaternized, benzoates (salts)	Unspecified	1428963-39-6

