Justification Document for the Selection of a CoRAP Substance

Substance Name (public name):	3-({[(4-methylphenyl)sulfonyl]carbamoyl}amino)phenyl 4-methylbenzenesulfonate
EC Number:	432-520-2
CAS Number:	232938-43-1
Authority:	BE CA
Date:	19/03/2019

Cover Note

This document has been prepared by the evaluating Member State given in the CoRAP update.

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1 IDENTITY OF THE SUBSTANCE

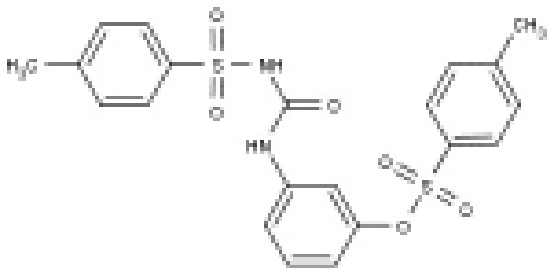
1.1 Other identifiers of the substance

Table: Other Substance identifiers

EC name (public):	3-({[(4-methylphenyl)sulfonyl]carbamoyl}amino)phenyl 4-methylbenzenesulfonate
IUPAC name (public):	3-{[(4-methylbenzenesulfonyl)carbamoyl]amino}phenyl 4-methylbenzene-1-sulfonate
Index number in Annex VI of the CLP Regulation:	006-099-00-7
Molecular formula:	$C_{21}H_{20}N_2O_6S_2$
Molecular weight or molecular weight range:	460.52
Synonyms:	• Benzenesulfonamide, 4-methyl-N-[[[3-[[(4-methylphenyl)sulfonyl]oxy]phenyl]amino]carbonyl]- • N-(p-toluenesulfonyl)-N'-(3-(p-toluenesulfonyloxy)phenyl)urea • DP 201 • Pergafast 201

Type of substance ☒ Mono-constituent ☐ Multi-constituent ☐ UVCB

Structural formula:



1.2 Similar substances/grouping possibilities

NA

2 OVERVIEW OF OTHER PROCESSES / EU LEGISLATION

Table: Completed or ongoing processes

RMOA	☐ Risk Management Option Analysis (RMOA)	
REACH Processes	Evaluation	☐ Compliance check
		☐ Testing proposal
		☐ CoRAP and Substance Evaluation
	Authorisation	☐ Candidate List
		☐ Annex XIV
	Restriction	☐ Annex XVII[1]
CLH	☐ Annex VI (CLP) (see section 3.1)	
Processes under other EU legislation	☐ Plant Protection Products Regulation Regulation (EC) No 1107/2009	
	☐ Biocidal Product Regulation Regulation (EU) 528/2012 and amendments	
Previous legislation	☐ Dangerous substances Directive 67/548/EEC (NONS)	
	☐ Existing Substances Regulation 793/93/EEC (RAR/RRS)	
(UNEP) Stockholm convention (POPs Protocol)	☐ Assessment	
	☐ In relevant Annex	
Other processes/ EU legislation	☐ Other (provide further details below)	
Further details	/	

[1] Please specify the relevant entry.

3 HAZARD INFORMATION (INCLUDING CLASSIFICATION)

3.1 Classification

3.1.1 Harmonised Classification in Annex VI of the CLP

Table: Harmonised classification

Index No	International Chemical Identification	EC No	CAS No	Classification		Spec. Conc. Limits, M-factors	Notes
				Hazard Class and Category Code(s)	Hazard statement code(s)		
006-099-00-7	N-(p-toluenesulfonyl)-N'-(3-(p-toluenesulfonyloxy)phenyl)urea 3-({[(4-methylphenyl)sulfonyl]carbamoyl}amino)phenyl 4-methylbenzenesulfonate	432-520-2	232938-43-1	Aquatic Chronic 2	H411		

3.1.2 Self classification

- In the registration:

  Same as the harmonized classification

- The following hazard classes are in addition notified among the aggregated self classifications in the C&L Inventory:

  NA

3.1.3 Proposal for Harmonised Classification in Annex VI of the CLP

NA

4 INFORMATION ON (AGGREGATED) TONNAGE AND USES[2]

4.1 Tonnage and registration status

Table: Tonnage and registration status*

☒ Full registration(s) (Art. 10)	☐ Intermediate registration(s) (Art. 17 and/or 18)	
Tonnage band (as per dissemination site)		
☐ 1 – 10 tpa	☐ 10 – 100 tpa	☐ 100 – 1000 tpa
☐ 1000 – 10,000 tpa	☐ 10,000 – 100,000 tpa	☐ 100,000 – 1,000,000 tpa
☐ 1,000,000 – 10,000,000 tpa	☐ 10,000,000 – 100,000,000 tpa	☐ > 100,000,000 tpa
☒ 100 + tpa		☒ Confidential
One full registration dossier + one NONS registration		

***** The total tonnage band has been calculated from information on the ECHA dissemination site by excluding the intermediate uses, for details see the Manual for Dissemination and Confidentiality under REACH Regulation (section 2.6.11): https://echa.europa.eu/documents/10162/22308542/manual_dissemination_en.pdf/7e0b87c2-2681-4380-8389-cd655569d9f0

4.2 Overview of uses

Table: Uses

Part 1:

☐ Manufacture	☒ Formulation	☒ Industrial use	☒ Professional use	☒ Consumer use	☒ Article service life	☐ Closed system

Part 2:

	Use(s)
Uses as intermediate	
Formulation	Formulation into mixture
Uses at industrial sites	Manufacture of thermal paper and thermal paper products
Uses by professional workers	Professional use of thermal paper and thermal paper products
Consumer Uses	Consumer use of thermal paper and thermal paper products
Article service life	Thermal paper and thermal paper products

[2] *Dissemination website consulted on 29 May 2018*

5. JUSTIFICATION FOR THE SELECTION OF THE CANDIDATE CoRAP SUBSTANCE

5.1. Legal basis for the proposal

☒ Article 44(2) (refined prioritisation criteria for substance evaluation)

☐ Article 45(5) (Member State priority)

5.2. Selection criteria met (why the substance qualifies for being in CoRAP)

☒ Fulfils criteria as CMR/ Suspected CMR

☐ Fulfils criteria as Sensitiser/ Suspected sensitiser

☒ Fulfils criteria as potential endocrine disrupter

☐ Fulfils criteria as PBT/vPvB / Suspected PBT/vPvB

☐ Fulfils criteria high (aggregated) tonnage (*tpa > 1000*)

☒ Fulfils exposure criteria

☐ Fulfils MS's (national) priorities

5.3. Initial grounds for concern to be clarified under Substance Evaluation

Hazard based concerns		
CMR ☐ C ☐ M ☐ R	Suspected CMR[1] ☐ C ☐ M ☒ R	☒ Potential endocrine disruptor
☐ Sensitiser	☐ Suspected Sensitiser[3]	
☐ PBT/vPvB	☐ Suspected PBT/vPvB[1]	☐ Other (please specify below)
Exposure/risk based concerns		
☐ Wide dispersive use	☐ Consumer use	☐ Exposure of sensitive populations
☐ Exposure of environment	☐ Exposure of workers	☐ Cumulative exposure
☐ High RCR	☐ High (aggregated) tonnage	☐ Other (please specify below)

[3] CMR/Sensitiser: known carcinogenic and/or mutagenic and/or reprotoxic properties/known sensitising properties (according to CLP harmonized or registrant self-classification or CLP Inventory)
Suspected CMR/Suspected sensitiser: suspected carcinogenic and/or mutagenic and/or reprotoxic properties/suspected sensitising properties (not classified according to CLP harmonized or registrant self-classification)
Suspected PBT: Potentially Persistent, Bioaccumulative and Toxic

- Reproductive toxicity: effects on testes were observed in the 28d short term toxicity study but not confirmed by the screening repro/developmental study. However, the latter study was only tested up to 200 mg/kg bw/d.
- Neurotoxicity: some changes were observed during neuro examination (locomotor activity) in the 28d short term toxicity study.
- Immunotoxicity : 28d and 90d study : changes in spleen and adrenal glands, 28d study : changes in thymus.
- ED: in a study similar to OECD 455 (Stable Transfected Human Estrogen Receptor & Transcriptional Activation Assay for Detection of Estrogen Agonistic-Activity of Chemicals) the substance is suggested to be non-estrogenic with a relative potency substantially low compared to 17b-estradiol (10^7 times less potent). However an increase in luciferase activity (marker of ERα induction) was observed.

In a literature study on the endocrine activity of alternatives to BPA found in thermal paper in Switzerland (D.M. Goldinger et al, 2015) the substance was found to be non-estrogenic but a significant decrease in free testosterone level was observed although not dose-dependent and near background level. Furthermore PPARγ binding activity was positive (22.0µM - VirtualToxLab™). Authors concluded that further studies are required to show that there are no adverse effects on the hormonal system.

Reference

Goldinger D.M., Demierre A-L., Zoller O., Rupp H., Reinhard H., Magnin R., Becker T.W., Bourqui-Pittet M. (2015) Endocrine activity of alternatives to BPA found in thermal paper in Switzerland. Regulatory Toxicology and Pharmacology, 71, 453-462.

5.4. Preliminary indication of information that may need to be requested to clarify the concern

☒ Information on toxicological properties	☐ Information on physico-chemical properties
☐ Information on fate and behaviour	☐ Information on exposure
☐ Information on ecotoxicological properties	☐ Information on uses
☒ Information ED potential	☐ Other (provide further details below)
A potential outcome of this evaluation could be the request of an EOGRTS to confirm the ED and repro concerns.	

5.5. Potential follow-up and link to risk management

☒ Harmonised C&L	☐ Restriction	☒ Authorisation	☐ Other (provide further details)
Depending on the outcome of the evaluation, a proposal for harmonized C&L and/or SVHC identification could be envisaged.			