Justification for the selection of a substance for CoRAP inclusion

Substance Name (Public Name):	2-[methyl[(nonafluorobutyl)sulpho-nyl]amino]ethyl acrylate
Chemical Group:	
EC Number:	266-733-5
CAS Number:	67584-55-8
Submitted by:	Germany
Date:	17/03/2015

Note

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

Contents

1 IDENTITY OF THE SUBSTANCE

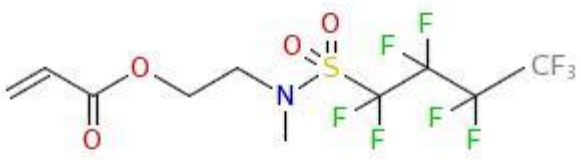
1.1 Other identifiers of the substance

Table 1: Substance identity

EC name:	2-[methyl[(nonafluorobutyl)sulphonyl]amino]ethyl acrylate
IUPAC name:	2-{methyl[(nonafluorobutyl)sulfonyl]amino}ethyl acrylate
Index number in Annex VI of the CLP Regulation	-
Molecular formula:	$C_{10}H_{10}F_9NO_4S$
Molecular weight or molecular weight range:	411.24 g·mol^{-1}
Synonyms/Trade names:	N-MeFBSEA

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

Structural formula:



1.2 Similar substances/grouping possibilities

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2 CLASSIFICATION AND LABELLING

2.1 Harmonised Classification in Annex VI of the CLP

The substance is not listed in Annex VI of the CLP regulation.

2.2 Self classification

- In the registration:

  Skin Sens. 1B H317

  Aquatic Chronic 2 H411

- No additional hazard classes are notified among the aggregated self classifications in the C&L Inventory.

2.3 Proposal for Harmonised Classification in Annex VI of the CLP

No proposal for harmonised classification is publically available.

3 INFORMATION ON AGGREGATED TONNAGE AND USES

From ECHA 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
☐ <1 . . . . . >+ tpa (e.g. 10+ ; 100+ ; 10,000+ tpa)		☐ Confidential

☒ Industrial use	☐ Professional use	☐ Consumer use	☐ Closed System
The substance is used in the industrial polymerization and manufacture of C4 acrylate.			

4 OTHER COMPLETED/ONGOING REGULATORY PROCESSES THAT MAY AFFECT SUITABILITY FOR SUBSTANCE EVALUATION

☐ Compliance check, Final decision	☐ Dangerous substances Directive 67/548/EEC
☒ Testing proposal	☐ Existing Substances Regulation 793/93/EEC
☐ Annex VI (CLP)	☐ Plant Protection Products Regulation 91/414/EEC
☐ Annex XV (SVHC)	☐ Biocidal Products Directive 98/8/EEC ; Biocidal Product Regulation (Regulation (EU) 528/2012)
☐ Annex XIV (Authorisation)	☐ Other (provide further details below)
☐ Annex XVII (Restriction)	

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[1]	
☐ 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)

2-[methyl[(nonafluorobutyl)sulphonyl]amino]ethyl acrylate (N-MeFBSEA) is presumably an alternative for PFOA related substances, which has been proposed for restriction (Oct 2014) and therefore an increasing use and production of alternatives is expected. Thus, environmental exposure might increase in the future.

The intrinsic properties of N-MeFBSEA may be of concern. N-MeFBSEA is stated to be not readily biodegradable. Nevertheless, it is expected that perfluorobutanoic acid (PFBA) will be the final degradation product. Log K_{OW} is reported to be 4.19 for N-MeFBSEA. No further information on bioaccumulation and chronic toxicity are available. For the assessment of the bioaccumulation potential additional information (e.g. protein binding potential) may be required, since other mechanisms for bioaccumulation than log Kow and BCF are of relevance for these per- and polyfluorinated substances.
In addition PFBA is expected to have a high mobility in the environment, which also needs to be assessed, e.g. in terms of its potential for long-range transport.

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)

[1] 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

Based on a preliminary examination of the available data, information to assess the bioaccumulation potential and the ecotoxicity are required. In detail, a test on long-term ecotoxicity of N-MeFBSEA might be requested because chronic data are so far missing and the substance is classified with Aquatic Chronic 2 which indicates the need to investigate further the effects on aquatic organisms. Furthermore such as test might be needed for PFBA as well. To clarifiy the bioaccumulation potential a testing on whether PFHxA binds to proteins would be needed. Additionally, a detailed evaluation of the available data may lead to further information requirements.

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 substance evaluation, an analysis of Risk Management Options shall be carried out to identify appropriate risk management measures.			