Justification for the selection of a candidate CoRAP substance

Substance Name (Public Name): Dimethyl glutarate

Chemical Group: Organic

EC Number: 214-277-2

CAS Number: 1119-40-0

Submitted by: UK CA

Published: 20/03/2012

NOTE

This document has been prepared by United Kingdom Competent Authority but the evaluating Member State was changed to Poland in the CoRAP update for 2014-2016.

Contents

1	1.1 Name and other identifiers of the substance	3
2	CLASSIFICATION AND LABELLING 2.1 Harmonised Classification in Annex VI of the CLP 2.2 Proposal for Harmonised Classification in Annex VI of the CLP 2.3 Self classification	4
3	JUSTIFICATION FOR THE SELECTION OF THE CANDIDATE CORAP SUBSTANCE 3.1 Legal basis for the proposal 3.2 Grounds for concern 3.3 Information on aggregated tonnage and uses 3.4 Other completed/ongoing regulatory processes that may affect suitability for substance evaluation 3.5 Information to be requested to clarify the suspected risk 3.6 Potential follow-up and link to risk management	5 5 5 7 7

1 IDENTITY OF THE SUBSTANCE

1.1 Name and other identifiers of the substance

Table 1: Substance identity

Public Name:	Dimethyl glutarate
EC number:	214-277-2
EC name:	Dimethyl glutarate
CAS number (in the EC inventory):	1119-40-0
CAS number:	1119-40-0
CAS name:	Pentanedioic acid, 1,5-dimethyl
IUPAC name:	Dimethyl glutarate
Index number in Annex VI of the CLP Regulation	Not applicable
Molecular formula:	$C_7H_{12}O_4$
Molecular weight or molecular weight range:	160.16
Synonyms:	Glutaric acid, dimethyl ester Pentanedioic acid, dimethyl ester

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

Structural formula:

2 CLASSIFICATION AND LABELLING

2.1 Harmonised Classification in Annex VI of the CLP

Not applicable.

2.2 Proposal for Harmonised Classification in Annex VI of the CLP

Not applicable.

2.3 Self classification

No self classification on the dissemination site.

Classification and Labelling Inventory includes the following classifications;

Acute Tox. 4; H302: Harmful if swallowed.

STOT RE 2; H373: May cause damage to organs through prolonged or repeated exposure.

Skin Irrit. 2; H315: Causes skin irritation.

Eye Irrit. 2; H319: Causes serous eye irritation.

Acute Tox. 3; H331: Toxic if inhaled.

Acute Tox. 4; H312: Harmful in contact with skin.

Acute Tox. 4; H332: Harmful if inhaled.

STOT SE 3; H335: May cause respiratory irritation.

Aquatic Chronic 4; H413: May cause long lasting harmful effects to aquatic life.

3 JUSTIFICATION FOR THE SELECTION OF THE CANDIDATE CORAP SUBSTANCE

SOBSIANCE		

 \boxtimes Article 44(1) (refined prioritisation criteria for substance evaluation)

3.1 Legal basis for the proposal

☐ Article 45(5) (Member State priority)						
3.2 Grounds for concern						
SIZ GIOUIIUS IOI CO	3.2 Grounds for Concern					
☐ (Suspected) CMR		☐ Cumulat ☐ Cumulat			☐ Cumulative exposure	
☐ (Suspected) Sensitiser		☐ Consumer use			☐ High RCR	
☐ (Suspected) PBT		☐ Exposure of sensitive populations		s	□ Aggregated tonnage	
Suspected endocrine disr ■ Suspected endocrine disr ■ ■ Suspected endocrine disr ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	Suspected endocrine disruptor ☐ Other (provide further details below)					
Human Health - In a 90-day rat inhalation study, a dose related decrease in testosterone and Luteinising hormone was observed raising concern the substance is an endocrine disruptor. Further evaluation is required to determine whether or not dimethyl glutarate is an endocrine disruptor.						
The human exposures and risk assessments (currently not a concern) may need to be reconsidered depending on the outcome of the evaluation of dimethyl glutarate's potential endocrine effects.						
3.3 Information on aggregated tonnage and uses						
☐ 1 - 10 tpa		☐ 10 - 100 tpa ☐ 1		□ 100	00 - 1000 tpa	
		☐ 10,000 - 100,000 tpa				
☐ 100,000 - 1000,000 tpa		☐ > 1000,000 tpa				
☐ Confidential						
Tonnage on dissemination site						
☐ Industrial use	⊠ Profe	fessional use		☐ Closed System		

EC no. 214-277-2 MSCA – Poland Page 5 of 7

Industrial Uses:

Manufacture of substance

Distribution of substance

Use as intermediate

Formulation & (re)packing of substances and mixtures

Uses in Coating

Use in Cleaning Agents

Use in Oil and Gas field drilling and production operations

Lubricants

Metal working fluids / rolling oils

Blowing agents

Use as binders and release agents

Use as a fuel

Functional Fluids

Use in laboratories

Polymer Production and processing

Rubber production and processing

Water treatment chemicals

Mining chemicals

Professional Uses:

Uses in Coating

Use in Cleaning Agents

Use in Oil and Gas field drilling and production operations

Lubricants

Metal working fluids / rolling oils

Use as binders and release agents

Use as a fuel

Functional Fluids

De-icing and anti-icing applications

Road and construction applications

Use in laboratories

Explosives manufacture & use

Polymer processing

Water treatment chemicals

Use in Agrochemicals

Consumer Uses:

Uses in Coating

Use in Cleaning Agents

Lubricants

Use in Agrochemicals

Use as a fuel

Functional Fluids

De-icing and anti-icing applications

Other Consumer Uses

Water treatment chemicals

3.4 Other completed/ongoing regulatory processes that may affect suitability for substance evaluation

☐ Compliance check		☐ Dangerous s	☐ Dangerous substances Directive 67/548/EEC			
☐ Testing proposal		☐ Existing Sub	☐ Existing Substances Regulation 793/93/EEC			
☐ Annex VI (CLP)		☐ Plant Protec	☐ Plant Protection Products Regulation 91/414/EEC			
☐ Annex XV (SVHC)		☐ Biocidal Pro	☐ Biocidal Products Directive 98/8/EEC			
☐ Annex XIV (Authorisa	tion)	☐ Other (provi	☐ Other (provide further details below)			
☐ Annex XVII (Restriction	on)					
None known.						
3.5 Information to be requested to clarify the suspected risk						
$oxed{\boxtimes}$ Information on toxicol	ogical properties	☐ Information	on physico-chemical properties			
☐ Information on fate ar	nd behaviour	☐ Information	☐ Information on exposure			
☐ Information on ecotox	icological properties	☐ Information	☐ Information on uses			
☐ Other (provide further details below)						
Human Health - In a 90-day rat inhalation study, a dose related decrease in testosterone and Luteinising hormone was observed raising concern the substance is an endocrine disruptor. Further investigation may be required to confirm whether or not the effects observed in the 90-day study are reproducible.						
3.6 Potential follow-up and link to risk management						
□ Restriction □	☐ Harmonised C&L	□ Authorisation	☐ Other (provide further details)			

EC no. 214-277-2 MSCA – Poland Page 7 of 7

Will depend on the outcome of the evaluation.