



Substance name: Diarsenic Trioxide
EC number: 215-481-4
CAS number: 1327-53-3

MEMBER STATE COMMITTEE
SUPPORT DOCUMENT FOR IDENTIFICATION OF
DIARSENIC TRIOXIDE
AS A SUBSTANCE OF VERY HIGH CONCERN

Adopted on 1 October 2008

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Substance Name: Diarsenic Trioxide

EC Number: 215-481-4

CAS number: 1327-53-3

- *The substance is identified as a CMR according to Article 57 (a) of Regulation (EC) No 1907/2006 (REACH).*

Summary of the evaluation:

According to Annex I to Directive 67/548/EEC Diarsenic Trioxide is classified as a carcinogen Cat. 1 (R 45: May cause cancer).

JUSTIFICATION

1 IDENTITY OF THE SUBSTANCE AND PHYSICAL AND CHEMICAL PROPERTIES

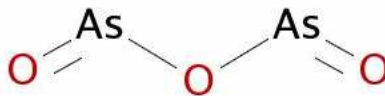
1.1 Name and other identifiers of the substance

Chemical Name: Diarsenic Trioxide
EC Name: 215-481-4
CAS Number: 1327-53-3
IUPAC Name: dioxodiarsoxane

1.2 Composition of the substance

Chemical Name: Diarsenic trioxide
EC Number: 215-481-4
CAS Number: 1327-53-3
IUPAC Name: dioxodiarsoxane
Molecular Formula: As_2O_3

Structural Formula:



Molecular Weight: 197.84
Typical concentration (% w/w): $\geq 99\%$
Concentration range (% w/w): See typical concentration

1.3 Physico-chemical properties

Table 1: Summary of physico- chemical properties

REACH ref Annex, §	Property	IUCLID section	Value
VII, 7.1	Physical state at 20°C and 101.3 kPa	4.1	Solid
VII, 7.2	Melting/freezing point	4.2	315°C/193°C
VII, 7.3	Boiling point	4.3	477°C
VII, 7.5	Vapour pressure	4.6	850.10 ⁻¹² hPa at 20°C
VII, 7.7	Water solubility	4.8	
VII, 7.8	Partition coefficient n-octanol/water (log value)	4.7 partition coefficient	No data available
XI, 7.16	Dissociation constant	4.21	

2 CLASSIFICATION AND LABELLING

2.1 Classification in Annex I of Directive 67/548/EEC

Diarsenic trioxide has been classified according to the 19th ATP, updated in the 25th ATP, of Directive 67/548/EEC as: Carc. Cat. 1; R45 - T+; R28 - C; R34 - N; R50-53.

It has been included in the Annex I of the Directive 67/548/EEC under index number: 033-003-00-0.

REFERENCES

ECB ClassLab database <http://ecb.jrc.it/classification-labelling/search-classlab/>

Fiche toxicologique de l'INRS FT89 : Trioxyde de diarsenic. 2006

Annex I of Directive 97/548/EEC

Commission Directive 2006/139/EC of 20 December 2006 amending Council Directive 76/769/EEC as regards restrictions on the marketing and use of arsenic compounds for the purpose of adapting its Annexe I to technical progress, 2006.

INERIS - Fiche de données toxicologiques et environnementales des substances chimiques : Arsenic et ses dérivés inorganiques. 2006

European Commission (2000) IUCLID Dataset, CAS 1327-53-3, 18.2.2000.