



**Substance name: Diarsenic Pentaoxide**  
**EC number: 215-116-9**  
**CAS number: 1303-28-2**

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

**Adopted on 1 October 2008**



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**Substance Name: Diarsenic Pentaoxide**

**EC Number: 215-116-9**

**CAS number: 1303-28-2**

- *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 Pentaoxide is classified as a carcinogenic Carc.Cat 1 (R 45: May cause cancer).

## JUSTIFICATION

### 1 IDENTITY OF THE SUBSTANCE AND PHYSICAL AND CHEMICAL PROPERTIES

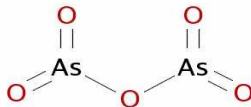
#### 1.1 Name and other identifiers of the substance

Chemical Name: Diarsenic Pentaoxide  
EC Name: 215-116-9  
CAS Number: 1303-28-2  
IUPAC Name: 1,3-dioxodiarsoxane 1,3-dioxide

#### 1.2 Composition of the substance

Chemical Name: Diarsenic Pentaoxide  
EC Number: 215-116-9  
CAS Number: 1303-28-2  
IUPAC Name: 1,3-dioxodiarsoxane 1,3-dioxide  
Molecular Formula: As<sub>2</sub>O<sub>5</sub>

Structural Formula:



Molecular Weight: 229.84  
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	
VII, 7.2	Melting/freezing point	4.2	315° C
VII, 7.3	Boiling point	4.3	
VII, 7.5	Vapour pressure	4.6	
VII, 7.7	Water solubility	4.8	1.5 Kg (16° C)
VII, 7.8	Partition coefficient n-octanol/water (log value)	4.7 partition coefficient	
XI, 7.16	Dissociation constant	4.21	

## 2 CLASSIFICATION AND LABELLING

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

Diarsenic pentaoxide has been classified according to the 19<sup>th</sup> ATP, updated in the 25<sup>th</sup> ATP, of Directive 67/548/EEC as Carc. Cat. 1; R45 (May cause cancer) - T; R23/25 (Toxic by inhalation and if swallowed) - N; R50-53 (Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment ) and has been included in the Annex I of the Directive 67/548/EEC under index number: 033-004-00-6.

#### Safety phrases:

- S53: Avoid exposure - obtain special instructions before use.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S60: This material and its container must be disposed of as hazardous waste.
- S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

## REFERENCES

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

Fiche toxicologique de l'INRS FT192 : Arsenic et composés minéraux. 2006

Annex I of the Directive 67/548/EEC

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

INRS – Inventaire 2005 des agents CMRS : Pentaoxide d'Arsenic [1303-28-2]

INRS – Fiche toxicologique FT192, Arsenic et ses composés minéraux, 2006