

Substance Name: 4,4'-oxydianiline and its salts

EC Number: 202-977-0

**CAS Number: 101-80-4** 

#### SUPPORT DOCUMENT FOR IDENTIFICATION OF

4,4'-OXYDIANILINE AND ITS SALTS

AS A SUBSTANCE OF VERY HIGH CONCERN BECAUSE OF ITS CMR<sup>1</sup> PROPERTIES

 $<sup>^{1}\ \</sup>mathrm{CMR}$  means carcinogenic, mutagenic or toxic for reproduction

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	1.1 NAME AND OTHER IDENTIFIERS OF THE SUBSTANCE

Substance Name: 4,4'-oxydianiline and its salts

EC Number: 202-977-0 CAS number: 101-80-4

The substance is identified as substance meeting the criteria of Article 57 (a) and 57 (b) of Regulation (EC) 1907/2006 (REACH) owing to its classification as carcinogen 1B and mutagen  $1B^2$  which corresponds to classification as carcinogen category 2 and mutagen category  $2^3$ .

## Summary of how the substance meets the criteria set out in Article 57 (a) and 57 (b) of REACH (Carc. 1B and Muta. 1B).

4,4'-oxydianiline and its salts is listed by Index number 612-199-00-7 in Regulation (EC) No 1272/2008 and classified in Annex VI, part 3, Table 3.1 (list of harmonised classification and labelling of hazardous substances) as carcinogen, Carc. 1B (H350: "May cause cancer") and mutagen, Muta. 1B (H340: "May cause genetic defects"). The corresponding classification in Annex VI, part 3, Table 3.2 (the list of harmonised classification and labelling of hazardous substances from Annex I to Directive 67/548/EEC) of Regulation (EC) No 1272/2008 is carcinogen, Carc. Cat. 2, R45 ("May cause cancer") and mutagen, Muta. Cat. 2, R46 ("May cause heritable genetic damage").

Therefore, this classification of 4,4'-oxydianiline and its salts in Regulation (EC) No 1272/2008 shows that the substance meets the criteria for classification as carcinogenic and mutagenic in accordance with Article 57 (a) and 57 (b) of REACH.

#### Registration dossiers submitted for the substance? Yes

 $<sup>^2</sup>$  Classification in accordance with Regulation (EC) No 1272/2008 Annex VI, part 3, Table 3.1 List of harmonised classification and labelling of hazardous substances.

<sup>&</sup>lt;sup>3</sup> Classification in accordance with Regulation (EC) No 1272/2008, Annex VI, part 3, Table 3.2 List of harmonised classification and labelling of hazardous substances (from Annex I to Council Directive 67/548/EEC).

## **JUSTIFICATION**

# 1 Identity of the substance and physical and chemical properties

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

**Table 1: Substance identity** 

EC number:	202-977-0
EC name:	4,4-oxydianiline
CAS number (in the EC inventory):	101-80-4
CAS number:	101-80-4
Deleted CAS numbers:	121509-79-3, 928208-61-1
CAS name:	Benzenamine, 4,4'-oxybis-
IUPAC name:	4,4'-Oxydianiline
Index number in Annex VI of the CLP Regulation	612-199-00-7
Molecular formula:	$C_{12}H_{12}N_2O$
Molecular weight range:	200.2 g/mol
Synonyms:	Aniline, 4,4'-oxydi-; 1-Amino-4-(4-aminophenoxy)benzene; 4,4'-Diaminobiphenyl ether; 4,4'-Diaminodiphenyl oxide; 4,4'-Diaminodiphenyl oxide; 4,4'-Diaminodiphenyl oxide; 4,4'-Diaminophenyl ether; 4,4'-Oxybis(aniline); 4,4'-Oxybis[benzenamine]; 4,4'-Oxydianiline; 4,4'-Oxydiphenylamine; 4-(4-Aminophenoxy)phenylamine; 4-Aminophenyl ether; Bis(4-aminophenyl) ether; Bis(p-aminophenyl) ether; Oxybis(4-aminobenzene); Oxydi-p-phenylenediamine; Oxydianiline; p,p'-Diaminodiphenyl ether; p,p'-Oxybis[aniline]; p,p'-Oxydianiline; p-Aminophenyl ether

#### Structural formula:

## 1.2 Composition of the substance

Name: 4,4'-oxydianiline

**Description: ---**

Degree of purity: 98 - 100 %

**Table 2: Constituents** 

Constituents	Typical concentration	Concentration range	Remarks	
4,4'-oxydianiline 202-977-0		98 - 100 %	Information according to the available registration dossiers.	

## 2 Harmonised classification and labelling

4,4'-oxydianiline is covered by Index number 612-199-00-7 in Annex VI, part 3 of Regulation (EC) No 1272/2008 as follows:

Table 3: Classification according to part 3 of Annex VI, Table 3.1 ((list of harmonised classification and labelling of hazardous substances) of Regulation (EC) No 1272/2008

Index No	International Chemical Identification	EC No CA	CAS No	Classification		Labelling			Spec.	Notes
				Hazard Class and Category Code(s)	Hazard statement code(s)	Pictogram , Signal Word Code(s	Hazard statement code(s)	Suppl. Hazard statement code(s)	_	
612-199-00-7	p-aminophenyl ether 4,4'-oxydianiline and its salts	202-977-0	101-80-4	Carc. 1B  Muta. 1B  Repr. 2  Acute Tox. 3 *  Acute Tox. 3 *  Acute Tox. 3 *  Acute Tox. 3 *	H350 H340 H361f *** H331 H311 H301 H411	GHS06 GHS08 GHS09 Dgr	H350 H340 H361f *** H331 H311 H301 H411		-	

Table 4: Classification according to part 3 of Annex VI, Table 3.2 (list of harmonised classification and labelling of hazardous substances from Annex I of Council Directive 67/548/EEC) of Regulation (EC) No 1272/2008

Index No	International Chemical Identification	EC No	CAS No	Classification	Labelling	Concentration Limits	Notes
612-199-00-7	p-aminophenyl ether	202-977-0	101-80-4	Carc. Cat. 2; R45	T; N	-	
	4,4'-oxydianiline and its			Muta. Cat. 2; R46	R:45-46-23/24/25-62-		
	salts			Repr. Cat. 3; R62	51/53		
				T; R23/24/25	S: 53-45-61		
				N; R51-53			

### 3 Environmental fate properties

Not relevant for the identification of the substance as SVHC in accordance with Articles 57 a and b.

#### 4 Human health hazard assessment

See section 2 on harmonised classification and labelling.

#### 5 Environmental hazard assessment

Not relevant for the identification of the substance as SVHC in accordance with Article 57 a and b.

## **6** Conclusions on the SVHC Properties

#### 6.1 CMR assessment

4,4'-oxydianiline and its salts is listed by Index number 612-199-00-7 in Regulation (EC) No 1272/2008 and classified in Annex VI, part 3, Table 3.1 (list of harmonised classification and labelling of hazardous substances) as carcinogen, Carc. 1B (H350: "May cause cancer") and mutagen, Muta. 1B (H340: "May cause genetic defects"). The corresponding classification in Annex VI, part 3, Table 3.2 (the list of harmonised classification and labelling of hazardous substances from Annex I to Directive 67/548/EEC) of Regulation (EC) No 1272/2008 is carcinogen, Carc. Cat. 2, R45 ("May cause cancer") and mutagen, Muta. Cat. 2, R46 ("May cause heritable genetic damage").

Therefore, this classification of 4,4'-oxydianiline and its salts in Regulation (EC) No 1272/2008 shows that the substance meets the criteria for classification as carcinogenic and mutagenic in accordance with Article 57 (a) and 57 (b) of REACH.