

Annex XV dossier

PROPOSAL FOR IDENTIFICATION OF A SUBSTANCE AS A CATEGORY 1A OR 1B CMR, PBT, vPvB OR A SUBSTANCE OF AN EQUIVALENT LEVEL OF CONCERN

Substance Name: Lead dipicrate

EC Number: 229-335-2

CAS Number: 6477-64-1

Submitted by: European Chemical Agency at the request of the European Commission

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PUBLIC VERSION: *This report does not include the Confidential Annexes referred to in Part II.*

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PROPOSAL FOR IDENTIFICATION OF A SUBSTANCE AS A CATEGORY 1A OR 1B CMR, PBT, VPVB OR A SUBSTANCE OF AN EQUIVALENT LEVEL OF CONCERN

Substance Name: **Lead dipicrate**
EC Number: **229-335-2**
CAS Number: **6477-64-1**

- The substance is proposed to be identified as substance meeting the criteria of Article 57 (c) of Regulation (EC) 1907/2006 (REACH) owing to its classification as toxic to reproduction category 1A¹ which corresponds to classification as toxic to reproduction category 1².

Summary of how the substance(s) meet(s) the CMR (1A or 1B) criteria

Lead dipicrate is covered by index numbers 082-001-00-6 of 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 toxic to reproduction, Repro. 1A (H360-Df: ‘May damage the unborn child. Suspected of damaging fertility’). 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 toxic to reproduction category 1 (R61: ‘May damage the unborn child. Suspected of damaging fertility’).

Therefore, this classification of lead dipicrate in Regulation (EC) No 1272/2008 shows that the substance meets the criteria for classification as toxic to reproduction in accordance with Article 57 (c) of REACH.

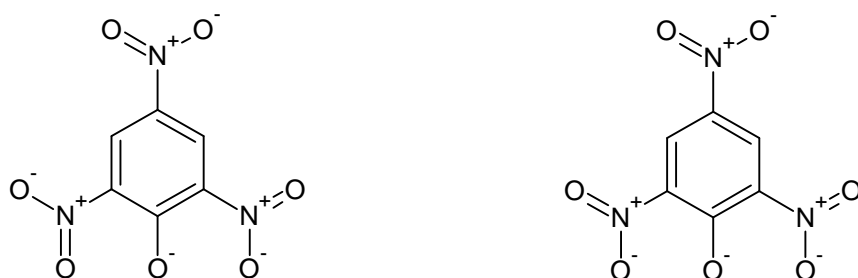
Registration dossiers submitted for the substance? No

¹ 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.

² 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).

PART I**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: | 229-335-2 |
| EC name: | lead dipicrate |
| CAS number (in the EC inventory): | 6477-64-1 |
| CAS number: | 6477-64-1 |
| Deleted CAS numbers: | 65308-86-3; 34352-43-7 |
| CAS name: | Phenol, 2,4,6-trinitro-, lead(2+) salt (2:1) |
| IUPAC name: | Lead(2+) bis(2,4,6-trinitrophenolate) |
| Index number in Annex VI of the CLP Regulation | 082-001-00-6 |
| Molecular formula: | C ₁₂ H ₄ N ₆ O ₁₄ Pb |
| Molecular weight: | 663.4 g/mol |
| Synonyms: | Lead, bis(picryloxy)-; Phenol, 2,4,6-trinitro-, lead(2+) salt; Picric acid, lead(2+) salt; Lead(II) picrate |

Structural formula:**1.2 Composition of the substance****Name:** Lead dipicrate**Description:** not relevant**Degree of purity:** no information available**Table 2: Constituents**

| Constituents | Typical concentration | Concentration range | Remarks |
|--|-----------------------|---------------------|--|
| Lead dipicrate EC number: 229-335-2 | 100 % | | No information available therefore the typical concentration is set to 100 % |

Table 3: Impurities

| Impurities | Typical concentration | Concentration range | Remarks |
|------------|-----------------------|---------------------|--------------------------|
| | | | No information available |

Table 4: Additives

| Additives | Typical concentration | Concentration range | Remarks |
|-----------|-----------------------|---------------------|--------------------------|
| | | | No information available |

1.3 Physico-chemical properties

There is no information on the physico-chemical properties available

2 HARMONISED CLASSIFICATION AND LABELLING

Lead dipicrate is covered by Index number numbers 082-001-00-6 in Annex VI, part 3 of Regulation (EC) No 1272/2008 as follows:

Table 5: 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 | CAS No | Classification | | Labelling | | | Spec. Conc. Limits, M-factors | 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) | | |
| 082-001-00-6 | lead compounds with the exception of those specified elsewhere in this Annex | - | - | Repr. 1A Acute Tox. 4* Acute Tox. 4* STOT RE 2* Aquatic Acute 1 Aquatic Chronic 1 | H360-Df H332 H302 H373** H400 H410 | GHS08 GHS07 GHS09 Dgr | H360Df H332 H302 H373** H410 | | Repr.2; H361f: C \geq 2,5% * STOT RE 2; H373: C \geq 0,5% | A 1 |

Notes:

A- Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3.

In Part 3, use is sometimes made of a general description such as ‘... compounds’ or ‘... salts’. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

1- The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.

Table 6: Classification according to part 3 of Annex VI, Table 3.2 (list of harmonized 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 |
|--------------|--|-------|--------|--|---|---|---------|
| 082-001-00-6 | lead compounds with the exception of those specified elsewhere in this Annex | - | - | Repr. Cat. 1;R61 Repr. Cat.3; R62 Xn; R20/22 R33 N; R50-53 | T; N R: 61-3-20/22-33-50/53-62 S: 53-45-60-61 | Repr. Cat. 3; R62: C \geq 2,5 % Xn; R20/22: C \geq 1 % R33: C \geq 0,5 % | AE 1 |

Note E (Table 3.2):

Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word ‘Also’.

3 ENVIRONMENTAL FATE PROPERTIES

Not relevant.

4 HUMAN HEALTH HAZARD ASSESSMENT

See section 2 on harmonised classification and labelling.

5 ENVIRONMENTAL HAZARD ASSESSMENT

Not relevant for this dossier.

6 CONCLUSIONS ON THE SVHC PROPERTIES

6.1 PBT, vPvB assessment

Not relevant.

6.2 CMR assessment

Lead dipicrate is covered by index numbers 082-001-00-6 of 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 toxic to reproduction, Repro. 1A (H360-Df: ‘May damage the unborn child. Suspected of damaging fertility’). 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 toxic to reproduction category 1 (R61: ‘May damage the unborn child. Suspected of damaging fertility’).

Therefore, this classification of lead dipicrate in Regulation (EC) No 1272/2008 shows that the substance meets the criteria for classification as toxic to reproduction in accordance with Article 57 (c) of REACH.

6.3 Substances of equivalent level of concern assessment

Not relevant.

PART II

INFORMATION ON USE, EXPOSURE, ALTERNATIVES AND RISKS

Part II of this Annex XV report has not been developed as lead dipicrate has not been registered (but pre-registered) and from the consultation on lead compounds in explosives³ it appears that small amounts of lead picrate are currently manufactured and used in the EU by a limited number of companies. More information is available in the confidential annex 1.

It seems that because of its extreme sensitivity to impact lead picrate has now been replaced by easier to handle superior explosives, such as lead diazide (EC n°236-542-1) and lead styphnate (EC n° 239-290-0).

However, due to its explosive properties, lead dipicrate could be considered as a replacement for lead diazide and lead styphnate, for which Annex XV dossiers have been prepared.

In order to avoid that one of these lead explosives, which are all toxic for reproduction, could be used to replace the other ones if these would be included in the Authorisation list (Annex XIV), Annex XV dossiers have been prepared for all three compounds: lead diazide, lead styphnate and lead dipicrate. More information on the uses of the first two compounds is available in the Annex XV dossiers provided for lead diazide and lead styphnate.

³ The underlying work for development of Part II of this Annex XV report was carried out under contract ECHA/2010/174 SR27 by DHI³ in collaboration with Risk & Policy Analysts Limited³ and TNO³. The technical work on the current project has been led by RPA.