



# **Draft Assessment Report (DAR)**

**- public version -**

**Initial risk assessment provided by the rapporteur Member State  
Germany for the existing active substance**

**CALCIUM PHOSPHIDE**

**of the third stage (part B) of the review programme  
referred to in Article 8(2) of Council Directive 91/414/EEC**

**Volume 2, Annex A**

**October 2007**

# Draft Assessment Report

12 June 2007

**Calcium phosphide**

**Volume 2**

**Annex A**

List of Tests and Studies

**Rapporteur Member State: Germany**

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## A.1 Identity

**A.1 Identity (Annex IIA 1, 3.1 to 3.4; Annex IIIA 1, 3.1 to 3.7, 3.9 and 12.1)**

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>1</sup>
Anonymous	AIIA-1.8	1909	Verfahren zur Darstellung von Phosphorcalcium aus Kalk und Phosphor. not GLP, published CHE2005-107	N	-
Anonymous	AIIA-1.8	1996	Synthesis of Calcium Phosphide. not GLP, unpublished CHE2005-1661	N	CFW
Anonymous	AIIA-1.8	1996	Synthese von Calciumphosphid. not GLP, unpublished CHE2002-443	N	CFW
Anonymous	AIIA-3.1; AIIIA-6.2	2000	Experimentalni podminky. not GLP, unpublished BIO2005-97	Y	CFW
Anonymous	AIIA-1.8	1911	Process for the production of phosphorcalcium from chalk and phosphorous, engl. transl of german doc.: Verfahren zur Darstellung von Phosphorcalcium aus Kalk und Phosphor. Deutsche Patentschrift 240 189 not GLP, published CHE2006-1127	N	-
Berthold, H.J.	AIIA-1.11; AIIA-2.5.1	1981	Results of the x-ray spectroscopic tests performed by us on two Polytanol samples. not GLP, unpublished CHE2006-1059	Y	CFW
Berthold, H.J.	AIIA-1.11	1981	Ergebnis der von uns an zwei Polytanol-Proben durchgeführten röntgenographische Untersuchungen. not GLP, unpublished CHE2005-110	Y	CFW
Deriu, P.	AIIA-3.1; AIIA-3.3; AIIA-3.4.2; AIIIA-3.1; AIIIA-3.3; AIIIA-6.2	1996	Essai Polytanol Taupicide. not GLP, unpublished BIO2005-94	Y	CFW
Jakowlew, A.A.	AIIA-3.1; AIIIA-6.2	2001	Gutachten über die Prüfungsunterlagen für das Zoozid Polytanol 18 %. not GLP, unpublished BIO2005-99	Y	CFW

<sup>1</sup> Only notifier listed

## A.1 Identity

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>1</sup>
Kiefer, R.	AIIA-1.11; AIIA-4.1.1; AIIA-4.1.2; AIIIA-5.1.1	2006	Determination of calcium phosphide and six impurities in five batches of calcium phosphide technical. 20061152/01 GLP, unpublished CHE2006-1128	Y	CFW
Kirillowa, M.N.	AIIA-3.1; AIIIA-3.3; AIIIA-6.2	2002	Report on a study of the biological efficacy of and the setting out of regulations for the use of a Chemische Fabrik Wülfel GmbH and Co. zooside Polytanol (18%). not GLP, unpublished BIO2005-101	Y	CFW
Kirillowa, M.N.	AIIA-3.1; AIIIA-6.2	2001	Bericht über die Erforschung der biologischen Wirksamkeit und Festlegung von Reglement bei Anwendung von Polytanol. not GLP, unpublished BIO2005-98	Y	CFW
Koch, E.	AIIA-1.11	1981	Chemical properties and ecological effects of polytanol, eng. transl. of german doc.: Chemische Eigenschaften und ökologische Wirkung von polytanol. K/P/W 81 not GLP, unpublished CHE2006-1130	Y	CFW
Koch, E.	AIIA-1.11	1981	Chemische Eigenschaften und ökologische Wirkungen von Polytanol. not GLP, unpublished CHE2005-111	Y	CFW
Lauenstein, G.	AIIA-3.1; AIIA-3.2.1; AIIA-3.3; AIIIA-3.2	1992	Gaskonzentrationsmessungen nach der Anwendung von Polytanol. P/2-282 not GLP, unpublished BIO2005-93	Y	CFW
Lube, A.	AIIA-1.11	1996	Abschlussbericht über die Ausgasungsversuche mit Polytanol. not GLP, unpublished CHE2005-112	N	CFW
Martens-Menzel, R.	AIIA-1.8	2000	Darstellung von technischem Calciumphosphid. not GLP, unpublished CHE2005-108	N	CFW

## A.1 Identity

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>1</sup>
Martens-Menzel, R.	AIIA-1.10; AIIA-1.11; AIIA-4.1; AIIA-4.1.2; AIIA-4.1.3.1; AIIA-4.1.3.2; AIIA-4.1.3.3; AIIA-4.1.3.4	2001	Untersuchungsbericht 00/1 - Quantitative chemische Analyse von Polytanol-Pellets. GLP, unpublished CHE2002-381	N	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-4.1.1; AIIA-5.1.1	2000	Validation of the Determination of Phosphine in Air by Means of IR Absorption Spectrometry. GLP, unpublished CHE2005-115	Y	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-2.9.1	2000	Supplementation to the Report about the Gas Development from Soil Fumigants Containing Phosphides. GLP, unpublished CHE2005-114	Y	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-2.9.1	2000	Report about the Gas Development from Soil Fumigants Containing Phosphides. GLP, unpublished CHE2005-113	Y	CFW
Martens-Menzel, R.	AIIA-1.11	2000	Translation of important parts from 3th draft VSG GC 81. GLP, unpublished CHE2006-1171	Y	CFW
Ritter v. Herz, E.	AIIA-3.1; AIIA-3.2	1957	Verfahren zur Schädlingsbekämpfung durch Vergasung mittels Phosphorwasserstoff. 965 609 not GLP, published BIO2005-88	N	-
Steiner	AIIA-3.1; AIIA-3.3; AIIA-3.4.2; AIIA-3.1	1957	Hauptprüfung 1957-Mittel gegen Wühlmäuse. II-2840 Z/PH not GLP, unpublished BIO2005-92	N	CFW
Truchetet, D.	AIIA-3.1; AIIA-3.4.2; AIIA-3.3; AIIA-6.2	2000	Compte-Rendue d'Essai officiel 2000 Toute culture-Campagnol terrestre. 99100021 not GLP, unpublished BIO2005-96	Y	CFW

A.1 Identity

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>1</sup>
Wagner, W.	AIIA-1.11	1960	Untersuchungen von technischem Calcium-phosphid. not GLP, unpublished CHE2005-109	N	CFW

**Codes of owner**

CFW: Chemische Fabrik Wülfel

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**A.2 Physical and chemical properties (Annex IIA 2; Annex IIIA 2)**

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>2</sup>
Anonymous	AIIA-2.7	1961	Calcium und Phosphor-Calciumphosphid Ca <sub>3</sub> P <sub>2</sub> . Gmelins Handbuch, 28, 1115-1119 28, 1115 -1119 (1961) not GLP, published CHE2005-116	N	-
Anonymous	AIIA-2.9.1	1996	Dicalciumphosphatschlamm. not GLP, unpublished CHE2005-118	Y	CFW
Anonymous	AIIA-2.7	1961	Calcium and phosphorous - calciumphosphide, engl. transl. of german doc.: Calcium und Phosphor - calciumphosphid Ca <sub>3</sub> P <sub>2</sub> . Gmelins Handbuch der anorganischen Chemie, Calcium, Teil B - Lieferung 3 System-nummer 28, 1115-1119 not GLP, published CHE2006-1132	N	-
Anonymous	AIIA-2.3.1	2006	IIA, 2.3.1, Vapour pressure (Statement). not GLP, unpublished CHE2006-1172	N	CFW
Anonymous	AIIIA- 2.8.6.1; AIIIA- 2.8.6.2; AIIIA-2.8.6.3	2002	Particle size distribution. not GLP, unpublished PHY2005-86	N	CFW
Berthold, H.J.	AIIA-1.11; AIIA-2.5.1	1981	Results of the x-ray spectroscopic tests performed by us on two Polytanol samples. not GLP, unpublished CHE2006-1059	Y	CFW
Calvert, J., Pitts, J.	AIIA-2.9.2; AIIA-2.10	1966	Photochemistry - The Interaction of Light with Simple Molecules. not GLP, unpublished CHE2005-119	N	CFW
Fritz, B. et al	AIIA-2.10; AIIA-7.2.2	1982	Laboratory kinetic investigations of the tropospheric oxidation of selected industrial emissions. Physico-Chemical Behaviour of Atmospheric Pollutants, 1982, 192-202 not GLP, published LUF2002-39	N	-

<sup>2</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>2</sup>
Karl, W.	AIIA-2.11.1	1983	Calcium phosphide - "Polytanol"; engl. transl. of the german doc: Calciumphosphide - "Polytanol". not GLP, unpublished CHE2006-1136	N	CFW
Karl, W.	AIIA-2.11.1; AIIA-2.11.2; AIIA-2.13	1983	Calciumphosphid - Polytanol. not GLP, unpublished CHE2002-451	Y	CFW
Karl, W.	AIIIA-2.3	1983	Calciumphosphid - Polytanol. not GLP, unpublished PHY2006-700	Y	CFW
Karl, W.	AIIIA-2.3	1983	Calciumphosphid - Polytanol. not GLP, unpublished PHY2005-78	Y	CFW
Köhler, U.	AIIA-2.2	2004	Relative Density of Polytanol (Calciumphosphide). not GLP, unpublished CHE2005-117	Y	CFW
Köhler, U.	AIIIA-2.4.2; AIIIA-2.6.2; AIIIA-2.8.6.1; AIIIA-2.8.6.3; AIIIA-2.8.8.1	1996	1. Information on the physical characteristics of the substance, 2. Flowability. not GLP, unpublished PHY2006-702	N	CFW
Köhler, U.	AIIIA-2.4.2; AIIIA-2.6.2; AIIIA-2.8.6.1; AIIIA-2.8.6.3; AIIIA-2.8.8.1	1996	Angaben zu den physikalischen Eigenschaften des Mittels. not GLP, unpublished PHY2005-82	N	CFW
Köhler, U.	AIIIA-2.6.1	2004	Relative Density of Polytanol (Calciumphosphide). not GLP, unpublished PHY2005-81	Y	CFW
Lüth, P.	AIIA-2.13; AIIA-2.15	2004	Classification of product "Polytanol" in accordance with method EC A.14 - Explosive Properties and method EC A.17 - Oxidizing Properties (Solids). not GLP, unpublished CHE2005-121	Y	CFW

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>2</sup>
Lüth, P.	AIIIA-2.2.1; AIIIA-2.2.2	2004	Classification of product "Polytanol" in accordance with method EC A.14 - Explosive Properties and method EC A.17 - Oxidizing Properties (Solids). II.2-786/04 not GLP, unpublished PHY2005-77	Y	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-2.9.1	2000	Supplementation to the Report about the Gas Development from Soil Fumigants Containing Phosphides. GLP, unpublished CHE2005-114	Y	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-2.9.1	2000	Report about the Gas Development from Soil Fumigants Containing Phosphides. GLP, unpublished CHE2005-113	Y	CFW
Martens-Menzel, R.	AIIIA-2.7.1; AIIIA-2.7.3; AIIIA-2.8.6.2	2000	Report of Examination 98/2 (Storage Stability of Polytanol Pellets). 98/2 GLP, unpublished PHY2005-84	Y	CFW
Martens-Menzel, R.	AIIIA-2.7.1; AIIIA-2.8.6.2	1998	Report of Examination 98/1 (Storage Stability of Polytanol Pellets). 98/1 GLP, unpublished PHY2005-83	Y	CFW
Möller, M.	AIIA-2.11.2; AIIIA-2.3	2007	Auto-flammability A.16 (Solids - determination of relative self-ignition temperature) GLP, unpublished CHE2007-406	Y	CFW
Noyes, W.A., Leighton, P.A.	AIIA-2.9.2	1966	The Photochemistry of Gases - Absorption by Polyatomic Molecules. not GLP, published CHE2005-120	N	-
Schlieper	AIIA-2.11.1	1986	Determination of flammability of polytanol; engl. transl. of the german doc: Beurteilung der Brennbarkeit von Polytanol. not GLP, unpublished CHE2006-1137	Y	CFW
Schlieper	AIIA-2.11.1; AIIA-2.15; AIIA-3.8.1	1986	Beurteilung der Brennbarkeit von Polytanol. not GLP, unpublished CHE2002-450	N	CFW
Schlieper	AIIIA-2.3	1986	Beurteilung der Brennbarkeit von Polytanol. not GLP, unpublished PHY2006-701	N	CFW

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>2</sup>
Schlieper	AIIIA-2.3	1986	Beurteilung der Brennbarkeit von Polytanol. not GLP, unpublished PHY2005-79	N	CFW
Schlösser, W.	AIIA-2.8	1989	Octanol/water partition coefficient of PH <sub>3</sub> , Engl. transl. of German doc.: Octanol-Wasser- Verteilungskoeffizient von PH <sub>3</sub> . 05011 not GLP, unpublished CHE2005-1895	Y	CFW
Schlösser, W.	AIIA-2.8	1989	Octanol-Wasser-Verteilungskoeffizient von PH <sub>3</sub> Untersuchungsbericht. 05011 not GLP, unpublished CHE2002-448	Y	CFW
Smeykal, H.	AIIA-2.3.1	2001	Zinc phosphide: Vapour pressure. 20010674.03 GLP, unpublished CHE2006-288	Y	CFW
Walter, D.	AIIIA2.6	2007	Pour and tap density of Polytanol GLP, unpublished PHY2007-210	Y	CFW

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### A.3 Further information (Annex IIA 3; Annex IIIA 3 and 4)

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>3</sup>
Anonymous	AIIA-3.1; AIIIA-6.2	2000	Experimentalni podminky. not GLP, unpublished BIO2005-97	Y	CFW
Anonymous	AIIIA-4.1.1	2004	Gesetz über die Beförderung gefährlicher Güter- Überwachung der Serienfertigung von Gefahr- gutverpackungen - Zulassungsschein Nr. D/BAM 5330/1A2W und D/BAM 5331/1A2W. not GLP, unpublished PHY2005-733	N	CFW
Backhaus, A.	AIIIA-4.5	1997	Medical Information for worker protection - Accidents with Polytanol. not GLP, unpublished CHE2005-166	N	CFW
Chaudry, M.Q., Price, N.R.	AIIA-3.5.1	1990	A spectral study of the biochemical reactions of phosphine with various haemproteins. Pest. Biochem., 1990, 14-21 not GLP, published BIO2005-104	N	-
Chin, K.L. et al.	AIIA-3.5.1	1992	The interaction of phosphine with haemoglobin and erythrocytes. Xenobiotica, 22, 1992, 599-607 not GLP, published BIO2005-105	N	-
Deriu, P.	AIIA-3.1; AIIA-3.3; AIIA-3.4.2; AIIIA-3.1; AIIIA-3.3; AIIIA-6.2	1996	Essai Polytanol Taupicide. not GLP, unpublished BIO2005-94	Y	CFW
Hsu, C.H. et al.	AIIA-3.5.1	1998	Phosphine-induced oxidative stress in hepa 1c1c7 cells. Envirom. Chem. and Toxic., 1998, 204-210 not GLP, published BIO2005-107	N	-
Jakowlew, A.A.	AIIA-3.1; AIIIA-6.2	2001	Gutachten über die Prüfungsunterlagen für das Zoozid Polytanol 18 %. not GLP, unpublished BIO2005-99	Y	CFW

<sup>3</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>3</sup>
Kirillowa, M.N.	AIIA-3.1; AIIIA-3.3; AIIIA-6.2	2002	Report on a study of the biological efficacy of and the setting out of regulations for the use of a Chemische Fabrik Wülfel GmbH and Co. zoozide Polytanol (18 %). not GLP, unpublished BIO2005-101	Y	CFW
Kirillowa, M.N.	AIIA-3.1; AIIIA-6.2	2001	Bericht über die Erforschung der biologischen Wirksamkeit und Festlegung von Reglement bei Anwendung von Polytanol. not GLP, unpublished BIO2005-98	Y	CFW
Klimmer, O.R.	AIIA-3.5.1	1969	Contribution to the Study of the Action of Phosphine (PH <sub>3</sub> )- The Question of the So- Called Chronic Phosphine Poisoning. Arch. Toxi-kol., 24, 1969, 164-187 not GLP, published BIO2005-106	N	-
Köhler, U.	AIIA-3.7; AIIIA-4.4; AIIIA-4.6.1	2004	Health and Safety Data Sheet acc. 91/155 EEC - Polytanol. not GLP, unpublished CHE2005-127	N	CFW
Köhler, U.	AIIIA-3.9	2004	The proposed label in Germany language for Polytanol, containing 18 % Calcium phosphi- de. not GLP, unpublished BIO2005-126	N	CFW
Köhler, U.	AIIIA-4.5	2004	Poisoning diagnosis. not GLP, unpublished CHE2005-167	N	CFW
Lauenstein, G.	AIIA-3.1; AIIA-3.2.1; AIIA-3.3; AIIIA-3.2	1992	Gaskonzentrationsmessungen nach der An- wendung von Polytanol. P/2-282 not GLP, unpublished BIO2005-93	Y	CFW
Martens- Menzel, R.	AIIA-4.1	2000	Translation of important parts from 3th draft VSG GC 81 GLP, unpublished CHE2006-1171	Y	CFW
Ritter v. Herz, E.	AIIA-3.1; AIIIA-3.2	1957	Verfahren zur Schädlingsbekämpfung durch Vergasung mittels Phosphorwasserstoff. 965 609 not GLP, published BIO2005-88	N	-
Schlieper	AIIA-2.11.1; AIIA-2.15; AIIA-3.8.1	1986	Beurteilung der Brennbarkeit von Polytanol. not GLP, unpublished CHE2002-450	N	CFW

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>3</sup>
Steiner	AIIA-3.1; AIIA-3.3; AIIA-3.4.2; AIIIA-3.1	1957	Hauptprüfung 1957-Mittel gegen Wühlmäuse. II-2840 Z/PH not GLP, unpublished BIO2005-92	N	CFW
Truchetet, D.	AIIA-3.1; AIIA-3.4.2; AIIIA-3.3; AIIIA-6.2	2000	Compte-Rendue d'Essai officiel 2000 Toute culture-Campagnol terrestre. 99100021 not GLP, unpublished BIO2005-96	Y	CFW
Venugopala Rao, K.	AIIA-3.5.1	1999	Acute orale toxicity with Polytanol in wistar rats. GLP, unpublished BIO2005-108	Y	CFW
WHO	AIIA-3.5.1; AIIA-3.6	1988	Environmental Health Criteria 73- Phosphine and selected metal phosphides. not GLP, published BIO2005-109	N	-
Wienecke, B.- U., Taegner, W.	AIIIA-4.1.2; AIIIA-4.1.3	1998	Gesetz über die Beförderung gefährlicher Gü- ter- Überwachung der Serienfertigung von Gefahr-gutverpackungen - Zulassungsschein Nr. D/BAM 5330/1A2W und D/BAM 5331/1A2W. III.12 /90282 III.12/90283 not GLP, unpublished PHY2005-92	N	CFW
Winstel, K.	AIIA-3.4.1	1977	Erfahrung zur Wühlmausbekämpfung im Obst- bau mit der Polytanette. not GLP, published BIO2005-102	N	-

#### Codes of owner

CFW: Chemische Fabrik Wülfel

#### **A.4 Classification, packaging and labelling (Annex IIA 10; Annex IIIA 12.3 and 12.4)**

No references submitted.

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## A.5 Methods of analysis (Annex IIA 4; Annex IIIA 5)

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>4</sup>
Asworth, R.	AIIA-4.1.1; AIIIA-5.1.1	1970	CIPAC-Methode - Zinc phosphide. CIPAC Handbook, Vol. I, 703-705 not GLP, published CHE2005-129	N	-
Breuer, D.	AIIA-4.2.4; AIIIA-5.2	1994	Luftanalysen -Analytische Methoden zur Prüfung gesundheitsschädlicher Arbeitsstoffe - Phosphorwasserstoff. VCH, 1, 1994, 1-10 2107 not GLP, published MET2000-424	N	-
Heintze, A.	AIIA-4.2.1; AIIA-4.2.5	2001	Residue analysis of Zink phosphide in human blood method validation. 20001426/01-PVAT GLP, unpublished MET2002-62	Y	CFW
Kiefer, R.	AIIA-1.11; AIIA-4.1.1; AIIA-4.1.2; AIIIA-5.1.1	2006	Determination of calcium phosphide and six impurities in five batches of calcium phosphide technical. 20061152/01 GLP, unpublished CHE2006-1128	Y	CFW
Koch, E.	AIIA-4.2.2	1982	Measuring the diffusion of PH <sub>3</sub> in soil; engl. transl. of the german doc.: Messung des Diffusionsstromes von PH <sub>3</sub> in Boden. not GLP, unpublished MET2006-454	Y	CFW
Koch, E.	AIIA-4.2.2	1982	Messungen des Diffusionsstromes von PH <sub>3</sub> im Boden. not GLP, unpublished MET2005-87	Y	CFW
Köhler, U.	AIIA-4.1.1; AIIA-4.1.3	2001	Specificity, linearity, accuracy, repeatability; enclosure to IIA, point 4.1. not GLP, unpublished CHE2006-1138	N	CFW
Köhler, U.	AIIA-4.1.1; AIIIA-5.1.1	2001	Modified WHO/SRT/Method Volumetric determination of phosphine. not GLP, unpublished CHE2005-128	N	CFW

<sup>4</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>4</sup>
Köhler, U.	AIIIA-5.1.1	2001	Method of analysis for pure active substance in technical material. not GLP, unpublished CHE2006-1140	N	CFW
Martens-Menzel, R.	AIIA-1.10; AIIA-1.11; AIIA-4.1; AIIA-4.1.2; AIIA-4.1.3.1; AIIA-4.1.3.2; AIIA-4.1.3.3; AIIA-4.1.3.4	2001	Untersuchungsbericht 00/1 - Quantitative chemische Analyse von Polytanol-Pellets. GLP, unpublished CHE2002-381	N	CFW
Martens-Menzel, R.	AIIA-1.11; AIIA-4.1.1; AIIIA-5.1.1	2000	Validation of the Determination of Phosphine in Air by Means of IR Absorption Spectrometry. GLP, unpublished CHE2005-115	Y	CFW
Martens-Menzel, R.	AIIIA-5.1.2; AIIIA-5.1.3	2001	Report of Examination 00/1 - Quantitative. GLP, unpublished CHE2005-170	Y	CFW
Martens-Menzel, R. et al.	AIIA-4.2.1	1995	Phosphine residues in vegetables after soil fumigation for rodent control; engl. transl. of german doc.: Prüfung des Verbleibs von Phosphorwasserstoffrückständen... not GLP, unpublished MET2006-453	N	CFW
Martens-Menzel, R.; Reichmuth, Ch.	AIIA-4.2.1; AIIA-4.2.4; AIIIA-5.2	1995	Prüfung des Verbleibs von Phosphorwasserstoff-Rückständen in Gemüsekulturen nach Anwendung von Rodentiziden. Nachrichtenbl. Deut. Pflanzenschutzd., 47, 12, 1995, 315 - 320 not GLP, published MET1999-917	N	-
Martens-Menzel, R.; Reichmuth, Ch., Pieritz, W.	AIIA-4.2.1; AIIIA-5.2	1994	Rückstandsverhalten von Phosphorwasserstoff in Rettichen und Möhren nach Begasung zur Bekämpfung der Wühlmaus. not GLP, unpublished MET1999-919	N	CFW
Matsumura, Y., Ono- Ogasawara, M., Furuse, M.	AIIA-4.2.2; AIIA-4.2.3; AIIA-4.2.4; AIIIA-5.2	1993	Adsorption sampling of phosphine and some other semiconductor material gases. Applied Occup. Environ.Hyg., 8(4), 1993, 288-292 not GLP, published MET2002-226	N	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>4</sup>
Mauldin, R.E.; Goldade, D.A.; Engeman, R.M.; Goodall, M.J; Craver, R.K., Johnston, J.J.	AIIA-4.2.1; AIIA-4.2.5	1996	Determination of Zinc phosphide residues in the california ground squirrel ( <i>spermophilus beecheryi</i> ) by gas chromatography - flame photometric detection. J. Agric. Food Chem. 44, 1996, 184-194 not GLP, published MET2002-63	N	-
Mortensen. G.; Pedersen, B., Rietz, B.	AIIA-4.2.2; AIIA-4.2.3; AIIA-4.2.4; AIIIA-5.2	1989	ICP-EAS and colorimetry analytical tools for the determination of phosphorus containing compounds, including phosphine. Analytical Letters, 22(7), 1989, 1791-1806 not GLP, published MET2002-225	N	-
Noack, S. et al.	AIIA-4.2.1	1983	Relationship of phosphine residues after fumigation to concentration, time of exposure and length of storage; engl. transl. of the german doc.: PH <sub>3</sub> -Rückstände bei der Vorratsbegasung... not GLP, unpublished MET2006-452	N	CFW
Noack, S.; Reichmuth, C., Wohlgemuth, R.	AIIA-4.2.1; AIIIA-5.2	1983	PH <sub>3</sub> -Rückstände bei Vorratsschutzbegasungen in Abhängigkeit von Konzentration, Einwirkungszeit und Lagerdauer nach der Begasung. 177:87-93 not GLP, unpublished MET2003-2	N	CFW
Noack,S.,et al.	AIIIA-5.2	1983	Relationship of phosphine residues after fumigation to concentration, time of exposure and length of storage. not GLP, published MET2006-455	N	-
Shrimali, A	AIIA-4.2.3; AIIIA-5.2	2001	Determination of phosphine concentration in water treated with Aluminium Phosphide bag, Jai research Nr. 3569 JRF study number 3569 not GLP, unpublished MET2002-40	N	UPL
Werle, H.	AIIA-4.2.3; AIIIA-5.2	1999	Method Validation for the Determination of Residues of Phosphine in Surface Water and Potable Water. 995040303 GLP, unpublished MET2000-49	Y	CFW

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Witte, A.	AIIA-4.2.1; AIIA-4.2.5	2001	Residue analysis of Zinc phosphide in animal tissues method validation - Method validation. 20001426/01-RVAT GLP, unpublished MET2002-60	Y	CFW

#### Codes of owner

CFW: Chemische Fabrik Wülfel  
UPL: United Phosphorus Ltd.

## A.6 Toxicology and metabolism (Annex IIA 5; Annex IIIA 7)

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Amr, M., Al-lam, M., Osmaan, A.L. et al.	AIIA-5.9.3	1993	Neurobehavioral changes among workers in some chemical industries in Egypt. Environmental Research, 63, 1993, 295-300 not GLP, published TOX2002-201	N	-
Amr, M.M.; et al.;	AIIA-5.9.3	1997	Neuropsychiatric syndromes and occupational exposure to Zinc phosphide in Egypt. Environ. Res., 73, 1997, 200-206 not GLP, published TOX2006-27	N	-
Andreev, S.B., Voevodin, A.V., Molchanova, V.A., Khotyanovich, A.V.	AIIA-5.1	1958	Some results of the use of tracer techniques in the study of plant protection. 2nd Int. Conf. Peaceful Uses Atomic Energy, 27, 1958, 85-92 not GLP, published TOX2002-165	N	-
Anonymous	AIIA-5.6.2	1991	Poisons Information Monograph 865 - Phosphine. IPCS INCHEM not GLP, published TOX2005-1197	N	-
Anonymous	AIIA-5.9.2; AIIA-5.9.6	1999	Niosh Alert - Preventing phosphine poisoning and explosions during fumigation. National Institute for Occupational Safety and Health, Cincinnati, USA, DHHH (NIOSH) publication No. 99-126 not GLP, published TOX2006-226	N	-
Anonymous	AIIA-5.9.1; AIIA-5.9.5	1999	Emergency first aid treatment guide for zinc phosphide. EPA, 1999 not GLP, published TOX2002-209	N	-
Araki, A., Noguchi, T., Kato, F., Matsushima, T.	AIIA-5.4.1	1994	Improved method for mutagenicity testing of gaseous compounds by using a gas sampling bag. Mutation Research, 307, 1994, 335-344 not GLP, published TOX2002-182	N	-

<sup>5</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Asher, P.P.	AIIA-5.9.1	2005	Report on health status of factory workers exposed during manufacturing of Aluminium phosphide. not GLP, unpublished TOX2006-225	Y	UPL
Backhaus, A.	AIIA-5.9.4; AIIA-5.9.5; AIIA-5.9.6	1997	Medizinisches Merkblatt für den Arbeitsschutz - Unfälle mit Polytanol - Medical information for worker protection - Accidents with Polyta- nol. not GLP, unpublished TOX2000-122	N	CFW
Balali-Mood, M.	AIIA-5.9.2; AIIA-5.9.4; AIIA-5.9.5; AIIA-5.9.6	1991	Phosphine - International programme on che- mical safety, poisons information monograph 865. International Programme on Chemical Safety (IPCS) PIM 865 not GLP, published TOX2006-185	N	-
Barbosa, A., Bonin, A.M.	AIIA-5.9.1; AIIA-5.9.3; AIIA-7.2.1.2	1994	Evaluation of phosphine genotoxicity at occu- pational levels of exposure in New South Wales, Australia. Occup-Environ.-Med. , 51, 10, 1994, 700-705 not GLP, published TOX97-50675	N	-
Barbosa, A., Rosinova, E., Dempsey, J., Bonin, A.M.	AIIA-5.3.2; AIIA-5.4.2	1994	Determination of genotoxic and other effects in mice following short term repeated-dose and subchronic inhalation exposure to phosphine. Environmental and Molecular Mutagenesis , 24, 1994, 81-88 not GLP, published TOX97-50676	N	-
Brockstedt, M.	AIIA-5.9.2	1991	Inquiry with regard to the active substance zinc phosphide - Engl. transl. of German doc.: An- fragen zum Wirkstoff Zinkphosphid not GLP, unpublished TOX2006-688	Y	CFW
Brunt, P.	AIIA-5.2.4	2001	Zinc phosphide: Acute dermal irritation in the rabbit. 1483/001 GLP, unpublished TOX2005-168	Y	CFW
Brunt, P.	AIIA-5.2.5	2001	Zinc phosphide: Acute eye irritation in the rabbit. 1483/002 GLP, unpublished TOX2005-171	Y	CFW

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Brunt, P.	AIIA-5.2.6; AIIIA-7.1.6	2001	Zinc phosphide: Skin sensitisation in the guinea pig - Magnusson and Kligman maximisation method. 1483/003 GLP, unpublished TOX2002-179	Y	CFW
Burgess, J.L., Pappas, G.P., Robertson, W.O.	AIIA-5.9.3	1997	Hazardous material incidents: The Washington poison center experience and approach to exposure assessment. JOEM, 8, 39, 1997, 760-766 not GLP, published TOX2005-195	N	-
Burgess, J.L., Morrissey, B. and Robertson, W.O.	AIIA-5.9.3	1998	Fumigant related illnesses: Washington State's five year experience. J. Toxicol. Clin. Toxicol., 36, 1998, 465 not GLP, published TOX2002-203	N	-
Cabrol, A.-M. et al.	AIIA-5.6.1	1986	Etude de reproduction chez des rats ingerant une aliment fumigee au phosphure d'hydrogene. (Reproduction in the rat with phosphine fumigated diet). Nutr., 4, 1986, 241-246 not GLP, published TOX2005-189	N	-
Chan, L.T.F., Crowley, R.J., Delliou, D., Geyer, R.	AIIA-5.1; AIIA-5.9.4	1983	Phosphine analysis in post mortem specimens following ingestion of aluminium phosphide. Journal of Analytical Toxicology , 7, 1983, 165-167 not GLP, published TOX98-50056	N	-
Childs, A. F., Coates, H.;	AIIA-5.1; AIIA-5.9.4; AIIA-5.9.6	1971	The toxicity of phosphorus compounds - Mellor's comprehensive treatise/inorganic and theoretical chemistry. White plains, New York, Longman (1971) Unknown not GLP, published TOX2006-170	N	-
Chopra, J.S., Karla, O.P., Malik, B.S. et al.	AIIA-5.9.5	1988	Aluminium phosphide poisoning: a prospective study of 16 cases in one year. Postgrad. Med. J., 62, 1113-1115 not GLP, published TOX2007-173	N	-
Chugh, S.N. et al.;	AIIA-5.9.2; AIIA-5.9.4	1991	Incidence & outcome of aluminium phosphide poisoning in a hospital study. Indian J Med Res, 232-235 not GLP, published TOX2005-305	N	-

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Chugh, S.N., Ram, S., Shar- ma, A., Arora, B.B. et al.	AIIA-5.9.2	1989	Adrenocortical involvement in aluminium phosphide poisoning. Indian J Med Res, 90, 289-294 not GLP, published TOX2007-169	N	-
Chugh, S.N., Sant Ram, Chugh, K., Malhotra, K.C.	AIIA-5.9.2	1989	Spot diagnosis of aluminium phosphide in- gestion: An application of a simple test. J. Assoc. Physicians India, 37, 219 not GLP, published TOX2007-168	N	-
Curry, A.S., Price, D.E., Thyhorn, F.G.	AIIA-5.1	1959	Absorption of zinc phosphide particles. Nature, 184, 1959, 642-643 not GLP, published TOX2002-163	N	-
Dickhaus, S., Heisler, E.	AIIA-5.2.2; AIIIA-7.1.2	1987	Akute Toxizitätsprüfung von der Substanz Aluminiumphosphid nach dermalen Applikati- on an der Ratte (OECD-Guidelines no. 404) (Acute toxicological study on compound Alu- miniumphosphid after dermal application to the rat). 1-4-142-87 GLP, unpublished TOX2000-93	N	DET
Dickhaus, S., Heisler, E.	AIIA-5.2.5; AIIIA-7.1.5	1987	Augenreiztest am Kaninchen mit Aluminium- phosphid nach OECD no. 405. (Irritant effects of Aluminiumphosphid on rabbit eye). 1-3-184-87 not GLP, unpublished TOX2000-95	N	DET
Dickhaus, S., Heisler, E.	AIIA-5.2.2	1980	Akute Toxizitätsprüfung von der Substanz "Zinkphosphid" nach dermalen Applikation an der skarifizierten Haut der Ratte; Translation: Acute toxicity test of the substance zinc phos- phide after dermal application to the skarified skin of rats. 1-4-258a-80 not GLP, unpublished TOX2002-173	Y	CFW
Dickhaus, S., Heisler, E.	AIIA-5.2.2	1980	Akute Toxizitätsprüfung von der Substanz "Zinkphosphid" nach dermalen Applikation an der Ratte. 1-4-258-80 not GLP, unpublished TOX96-52062	Y	CFW



Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Dickhaus, S. Heisler, E.	AIIA-5.2.4; AIIIA-7.1.4	1987	Prüfung von Aluminiumphosphid auf primäre Hautreizwirkung an der intakten Haut des Kaninchens (OECD-Guidelines no. 406). (Irritant effects of Aluminiumphosphid on intact skin of Rabbits). 1-3-183-87 GLP, unpublished TOX2000-94	N	DET
Dickhaus, S., Heisler, E.	AIIA-5.2.2	1980	Akute Toxizitätsprüfung von der Substanz "Zinkphosphid" nach dermalen Applikation an der Ratte. Translation: Acute toxicity test of the substance zinc phosphide after dermal application to the rat. 1-4-258-80 not GLP, unpublished TOX2002-172	Y	CFW
Feldstein, A., Heumann, M., Barnett, M.	AIIA-5.9.2	1991	Fumigant intoxication during transport of grain by railroad. Journal of Occupational Medicine (1991) Vol.33, pp. 64-65 Unknown not GLP, published TOX2006-186	N	-
Garry, V.F.; et al.;	AIIA-5.9.3	1992	Chromosome rearrangements in fumigant applicators: Possible relationship to non-Hodgkins lymphoma risk. Cancer Epidemiol. Bio. Prev., 1, 1992, 287-291 not GLP, published TOX2006-30	N	-
Garry, V.F., Griffith, J., Danzl, Th.J., Nelson, R.L., Whorton, E.B., Krueger, L.A., Cervenka, J.	AIIA-5.4.1; AIIA-5.9.1; AIIA-5.9.3	1989	Human genotoxicity: Pesticide applicators and phosphine. Science, 246, 1989, 251-255 not GLP, published TOX2000-114 TOX2006-28	N	-
Gellner, R.	AIIA-5.9.2	1991	Inquiry with regard to the pesticide active substance - Engl. transl. of German doc.: Anfrage zu Pflanzenschutzmittelwirkstoff Zinkphosphid not GLP, unpublished TOX2006-696	Y	-

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Glass, A.	AIIA-5.9.2	1956	Account of suspected phosphine poisoning in a submarine. Journal Royal Navy Medical Services (1956) Vol. 42, pp. 185-187 Unknown not GLP, published TOX2006-187	N	-
Gosselin, R.E., Smith, R.P., Hodge, H.C., Braddock, J.E.	AIIA-5.9.2	1984	Zinc phosphide. Clinical toxicology of commercial products. Fifth edition, Williams & Wilkins - Baltimore Hong Kong London Sydney, 1984, II-120 not GLP, published TOX2002-199	N	-
Guale, F.G., Stair, E.L., Johnson, B.W. et al.	AIIA-5.9.4	1994	Laboratory diagnosis of zinc phosphide poisoning. Vet. Human Toxicol., 36, 1994, 517-519 not GLP, published TOX2002-205	N	-
Guna Sherlin, D.M.;	AIIA-5.4.2	1998	Chromosomal aberration test of Aluminium phosphide technical in mice. 367 not GLP, unpublished TOX2006-222	Y	UPL
Guna Sherlin, D.M.	AIIA-5.4.2	1998	Micronucleus test of Aluminium phosphide technical in mice. 368 not GLP, unpublished TOX2006-221	Y	UPL
Gupta, S., Sus- hil, K., Ahla- wat, K.	AIIA-5.9.2	1995	Aluminium phosphide poisoning - a review. Clinical Toxicology, 33, 1, 1995, 19-24 Unknown not GLP, published TOX2006-188	N	-
Guth, E.	AIIA-5.9.1	2003	Occupational Health Care for Employees under Hydrogen Phosphide (PH <sub>3</sub> ) Exposition. not GLP, unpublished TOX2004-2205	N	DET
Hackenberg, U.	AIIA-5.5	1972	Chronic ingestion by rats of standard diet treated with aluminum phosphide. Toxicology and Applied Pharmacology, 23, 1972, 147-158 not GLP, published TOX2002-188	N	-

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Hackenberg, U.	AIIA-5.5	1972	Chronic ingestion by rats of standard diet treated with aluminium phosphide. Toxicology and Applied Pharmacology , 23, 1, 1972, 147-158 not GLP, published TOX96-52058	N	-
Hackenberg, U.	AIIA-5.5	1969	2-year-toxicity studies with Phostoxin-treated food on rats. A 0187/012 not GLP, unpublished TOX2005-286	N	DET
Halloran, R.O., Reich, G.A.	AIIA-5.9.3	1970	Blindness and gastrointestinal tract symptoms after exposure to pesticides. JAMA, 214, 5, 1970, 920 not GLP, published TOX2002-202	N	-
Harger, R.N., Spolyar, L.W.	AIIA-5.9.2	1958	Toxicity of phosphine, with a possible fatality from this poison. Arch. Ind. Health, 18, 497-504 not GLP, published TOX2007-171	N	-
Hayes, W.J.	AIIA-5.9.2	1982	Pesticides studied in man. (Organic phosphorus pesticides, clinical considerations, potentiation and antagonism, chlorfenvinphos.). Pesticides studied in man. Williams & Wilkins; Baltimore/London, , 1982, 301-318 132AX-493-089 not GLP, published TOX96-52228	N	-
Henschler	AIIA-5.9.1	1987	Gesundheitsschädliche Arbeitsstoffe - Toxikologisch-arbeitsmedizinische Begründung von MAK-Werten. VCH; 1-12 Lieferung/1986/87. Phosphorwasserstoff. (Translation: Industrial substances dangerous to health - Toxicological occupational health justification of MAK values). not GLP, unpublished TOX97-50342	Y	CFW
Jokote, C.	AIIA-5.3.2; AIIA-5.6.2	1904	Experimentelle Studien über den Einfluß technisch und hygienisch wichtiger Gase und Dämpfe auf den Organismus, Teil XI. Studien über Phosphorwasserstoff. Arch. für Hyg., 49/50, 275-306 not GLP, published TOX2005-1198	N	-

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Joshi, M.	AIIA-5.2.1	1998	Acute oral toxicity of Aluminium phosphide technical in mice. 362 not GLP, unpublished TOX2006-212	Y	UPL
Joshi, M.	AIIA-5.2.1	1998	Acute oral toxicity of Aluminium phosphide technical in rats. 361 not GLP, unpublished TOX2006-211	Y	UPL
Joshi, M.	AIIA-5.2.2	1998	Acute dermal toxicity of Aluminium phosphide technical in rats. 363 not GLP, unpublished TOX2006-214	Y	UPL
Joshi, M.	AIIA-5.2.4	1998	Primary skin irritation of Aluminium phosphide technical in rabbits. 364 not GLP, unpublished TOX2006-216	Y	UPL
Joshi, M.	AIIA-5.2.5	1998	Mucous membrane irritation test of Aluminium phosphide technical in rabbits. 365 not GLP, unpublished TOX2006-217	Y	UPL
Khosla, S. N., Nand, N., Khosla, P.	AIIA-5.9.2	1988	Aluminium phosphide poisoning. Med. Hyg., 91, 196-198 not GLP, published TOX2007-170	N	-
Khosla, S.N., Handa, R., Khosla, P.	AIIA-5.9.2	1992	Aluminium phosphide poisoning. Tropical Doctor (1992) Vol.22, pp. 155-157 Unknown not GLP, published TOX2006-189	N	-
Kietzmann, M.	AIIA-5.3.2; AIIA-5.5; AIIA-5.6.2	2004	Statement of concerning toxicological studies with Calcium phosphide (Polytanol). not GLP, unpublished TOX2005-178	Y	CFW
Kligerman, A.D., Bishop, J.B., Erexson, G. L. et al.	AIIA-5.4.2; AIIA-5.4.3; AIIA-5.6.1	1994	Cytogenetic and germ cell effects of phosphine inhalation by rodents. II: Subacute exposures to rats and mice. Environmental and Molecular Mutagenesis, 24, 1994, 301-308 not GLP, published TOX2002-185	N	-

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Kligerman, A.D., Bishop, J.B., Erexson, G.L. et. al.	AIIA-5.3.2; AIIA-5.4.2	1994	Cytogenetic and germ cell effects of phosphine inhalation by rodents. II: Subacute exposures to rats and mice. Environmental and Molecular Mutagenesis, 24, 1994, 301-306 not GLP, published TOX2002-830	N	-
Kligerman, A.D., Bryant, M.F., Doerr, C.L. et al.	AIIA-5.4.2	1994	Cytogenetic effects of phosphine inhalation by rodents. I: Acute 6-hour exposure of mice. Environmental and Molecular Mutagenesis, 23, 1994, 186-189 not GLP, published TOX2002-184	N	-
Kligerman, A.D., Bryant, M.F., Doerr, C.L., Erexson, G.L., Kwanyuen, P. and McGee, J.K.	AIIA-5.4.2	1994	Cytogenetic effects of phosphine inhalation by rodents. I: Acute 6-hour exposure of mice. Environmental and Molecular Mutagenesis, 23, 1994, 186-189 not GLP, published TOX97-50677	N	-
Klimmer, O.R.	AIIA-5.9.4; AIIA-5.10	1971	Phosphorwasserstoff und Phosphide in Pflanzenschutz- und Schädlingsbekämpfungsmitteln. Abriss einer Toxicologie und Therapie von Vergiftungen. not GLP, published TOX2005-197	N	-
Klimmer, O.R.	AIIA-5.2.3; AIIA-5.3.2; AIIA-5.6.2; AIIA-5.10	1969	Beitrag zur Wirkung des Phosphorwasserstoffes (PH <sub>3</sub> ). Zur Frage der sog. chronischen Phosphorwasserstoffvergiftung. - Contribution to the study of the action of Phosphine (PH <sub>3</sub> ) - The question of the so-called chronic Phosphine poisoning. Archiv für Toxikologie, 24, 2/3, 1969, 164-187 not GLP, published TOX96-52057	N	-
Köhler, U.	AIIA-5.2.2	1999	Calcium phosphide: Acute percutaneous toxicity. GLP, unpublished TOX2000-110	Y	CFW
Köhler, U.	AIIA-5.2.4	2004	Calcium phosphide: Skin irritation. not GLP, unpublished TOX2005-165	N	CFW
Köhler, U.	AIIA-5.2.5	2004	Calcium phosphide: Eye irritation. not GLP, unpublished TOX2005-170	N	CFW

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Köhler, U.	AIIA-5.2.6	2004	Calcium phosphide: Skin sensitisation. not GLP, unpublished TOX2005-172	N	CFW
Köhler, U.	AIIA-5.6.1	2004	Calcium phosphide: Two generation reproduc- tive in the rat. not GLP, unpublished TOX2005-188	N	CFW
Köhler, U.	AIIA-5.9.1	2004	Arbeitsmedizinische Vorsorgeuntersuchungen des Betriebspersonals - Direkte Beobachtungen -Industrial medical check-up of factory person- nel - direct observations. Translation: Industrial medical check-up of factory personnel - direct observations. not GLP, unpublished TOX2005-194	N	CFW
Köhler, U.	AIIA-5.9.4	2004	Calcium phosphide: Poisoning diagnosis. not GLP, unpublished TOX2005-198	N	CFW
Köhler, U.	AIIA-5.9.5	2004	Prescribed treatment - Immediate measures. not GLP, unpublished TOX2005-199	N	CFW
Köhler, U.	AIIIA-7.4	2004	Polytanol: Available toxicological data for each formulant. not GLP, unpublished TOX2005-211	N	CFW
Köhler, U.	AIIIA-7.4	2004	Polytanol: Notification and safety data sheet submitted in the context of Directive 67/548/EEC and Commission Directive 91/155/EEC for each formulant. not GLP, unpublished TOX2005-210	N	CFW
Konerding, J.	AIIA-5.9.1; AIIA-5.9.2; AIIIA-7.2.3.1	2004	Arbeitsmedizinische Bescheinigung. Translati- on: Industrial Medicine Certification. not GLP, unpublished TOX2004-882	N	CFW
Kowaleswski, S., Smend, J.	AIIA-5.9.2	1991	Inquiry with regard to the pesticide active substance (Engl. transl.) - Anfrage zu Pflanzen- schutzmittelwirkstoff Zinkphosphid. not GLP, unpublished TOX2006-25	Y	CFW
Krishnakumari, M.K., Bai, K.M., Majum- der, S.K.	AIIA-5.2.1	1980	Toxicity and rodenticidal potency of zinc phosphide. not GLP, published TOX2002-166	N	CFW

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Krishnakumari, M.K., Bai, K.M., Majumder, S.K.	AIIA-5.2.1	1979	Evaluation of acute oral toxicity of zinc phosphide in <i>Rattus norvegicus</i> (albino). Pesticides, 13, 11, 1979, 33-35 not GLP, published TOX2002-167	N	-
Leuschner, F.	AIIA-5.2.1	1992	Acute toxicity study of Aluminium phosphide by oral administration to NMRI mice. 7129/92 GLP, unpublished TOX2005-308	N	DET
Leuschner, F.	AIIA-5.4.1	1992	Phosphine: Mutagenicity study in mammalian cells (V79) in vitro - HGPRT Test. 6990/91 GLP, unpublished TOX2005-284	N	DET
Martens, F.	AIIA-5.9.2	1991	Inquiry with regard to the pesticide active substance - Engl. transl. of German doc.: Anfrage zu Pflanzenschutzmittelwirkstoff Zinkphosphid not GLP, unpublished TOX2006-692	Y	CFW
McKeon, M.E.	AIIA-5.4.2	1993	Genotoxicity test on Phosphine in the in vivo/in vitro assay for unscheduled DNA synthesis in rat primary hepatocyte cultures at two timepoints. A0040-0-494 GLP, unpublished TOX2005-285	Y	DET
Misra, U., Bhargava, S., Nag, D., Kidwai, M., Lal M.	AIIA-5.9.1	1988	Occupational phosphine exposure in indian workers. Toxicology letters, 42, 257-263 Unknown not GLP, published TOX2006-182	N	-
Misra, U.K., Tripathi, A.K., Pandey, R. Bhargwa,	AIIA-5.9.6	1988	Acute Phosphine poisoning following ingestion of Aluminium phosphide. Human Toxicol., 343-345 not GLP, published TOX2005-307	N	-
Moll, H.	AIIA-5.9.2	1991	Inquiry with regard to the pesticide active substance - Engl. transl. of German doc.: Anfrage zu Pflanzenschutzmittelwirkstoff Zinkphosphid not GLP, unpublished TOX2006-697	Y	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Morgan, D.L., Moorman, M.P., Elwell, M.R. et al.	AIIA-5.3.2	1995	Inhalation toxicity of Phosphine for Fischer 344 rats and B6C3F1 mice. Inhalation Toxicology, 7, 1995, 225-238 not GLP, published TOX2002-181	N	-
Müller, W.	AIIA-5.6.10	1940	Über Phosphorwasserstoffvergiftung (Tierversuche). I. Mitteilung: Akute und subakute Vergiftung not GLP, published TOX2005-1199	N	DET
Muktha Bai, K. Krishnakumari, M.K.; Ramesh, H.T., et al.	AIIA-5.3.2	1980	Short term toxicity study of zinc phosphide in albino rats (rattus norvegicus). Indien Journal of Exp., 18, 1980, 854-857 not GLP, published TOX2005-175	N	-
Muthu, M., Krishnakumari, M.K., Muralidhara, Majumder, S.K.	AIIA-5.2.3	1980	A study on the acute inhalation toxicity of phosphine to albino rats. Bulletin of environmental contamination and toxicology (1980) Vol. 24 pp.404-410 Unknown not GLP, published TOX2006-171	N	-
Nakata, K.	AIIA-5.2.1	1993	Acute symptoms caused by 1 percent zinc phosphide pellets in the gray red-backed vole, clethrionomys rufocanus bedfordiae. not GLP, published TOX2002-171	N	CFW
Neubert, D., Hoffmeister, I.	AIIA-5.1; AIIA-5.4.2; AIIA-5.8.2	1960	Veränderungen im intermediären Stoffwechsel nach Einwirkung von Phosphorwasserstoff. Nannyn-Schmiedebergs's Arch. exp. Path. u. Pharmak., 239, 1960, 219-233 not GLP, published TOX96-52055	N	-
Neurath, G.;	AIIA-5.6.2	2005	Phosphine/metal phosphides: Justification for non-submission of a developmental toxicity/teratogenicity study in the rabbit with phosphine - Expert Statement. 149288-A2-050602-01 not GLP, unpublished TOX2005-1127	N	CFW
Newton, P. E., Hilaski, J., Banas, D.A. et al.	AIIA-5.5	1999	A 2-year inhalation study of phosphine in rats. Inhalation Toxicology, 11, 1999, 693-708 not GLP, published TOX2002-189	N	-



Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Newton, P.E.	AIIA-5.2.3; AIIIA-7.1.3	1989	An acute inhalation toxicity study of phosphine (PH <sub>3</sub> ) in the rat. PROJECT NO.: 87-8029 not GLP, unpublished TOX97-51198	N	CAS
Newton, P.E.	AIIA-5.3.3	1990	An thirteen week inhalation toxicity study of phosphine (PH <sub>3</sub> ) in the rat. 87-8030 GLP, unpublished TOX2001-684	Y	PSA
Newton, P.E.	AIIA-5.5	1998	2-year combined inhalation chronic toxicity and oncogenicity study of phosphine in rats. 750-001 ! 182-007 GLP, unpublished TOX2000-98	Y	DET
Newton, P.E., Schroeder, R.E., Sullivan, J.B. et.al.	AIIA-5.2.3; AIIA-5.3; AIIA-5.6.1; AIIA-5.6.2; AIIIA-7.1.3	1993	Inhalation toxicity of phosphine in the rat: Acute, subchronic, and developmental. Inhalation Toxicology, 5, 2, 1993, 223-239 not GLP, published TOX2002-824	N	-
Newton, P.E. et al.	AIIA-5.6.10	1993	Inhalation toxicity of phosphine in the rat: Acute, subchronic, and developmental. not GLP, published TOX2002-824	N	-
Okolie, N.P., Aligbe, J.U., Osakue, E.E.	AIIA-5.3.2; AIIA-5.6.2	2004	Phostoxin-induced biochemical and patho- morphological changes in rabbits. Indian J. Exp. Biol., 42, 11, 2004, 1096-1099 not GLP, published TOX2005-1200	N	-
Omae, K., Ishizuka, C., Nakashima, H. et. al.	AIIA-5.2.3; AIIA-5.3.3	1996	Acute and subacute inhalation toxicity of highly purified phosphine (PH <sub>3</sub> ) in male ICR mice. J. Occup. Health, 38, 1996, 36-42 not GLP, published TOX2002-827	N	-
Omae, K., Ishizuka, C., Nakashima, H. et al.	AIIA-5.2.3; AIIA-5.3.3	1996	Acute and subacute inhalation toxicity of highly purified phosphine (PH <sub>3</sub> ) in male ICR mice. J. Occup. Health, 38, 1996, 36-42 not GLP, published TOX2002-174	N	-
Pal, B.B., Bhu- nya, S.P.	AIIA-5.4.2	1995	Mutagenicity testing of a rodenticide, zinctox (zinc phosphide) in a mouse in vivo system. In vivo, 9, 1995, 81-83 not GLP, published TOX2002-183	N	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Potter, W.T., Rong, S., Grif- fith, J., White, J. and Garry, V.F.	AIIA-5.3; AIIA-5.4.1; AIIA-5.6.2; AIIA-5.8.2	1991	Phosphine-mediated Heinz body formation and hemoglobin oxidation in human erythrocytes. Toxicology Letters, 57, 1991, 37-45 not GLP, published TOX2000-113	N	-
Rajesh Sundar, S.	AIIA-5.4.2; AIIA-5.6.1	1999	Dominant lethal test of Aluminium phosphide technical in mice. 370 not GLP, unpublished TOX2006-224	Y	UPL
Rajwani, L.S.	AIIA-5.4.1	2000	Salmonella typhimurium reverse mutation assay of Aluminium phosphide technical. 2567 GLP, unpublished TOX2006-220	Y	UPL
Reh, P.	AIIA-5.10; AIIA-7.2.1.1	2001	Polytanol - Bewertung der Exposition von Anwendern im Haus- und Kleingartenbereich. not GLP, unpublished TOX2002-826	N	CFW
Reigart, J.R., Roberts, J.R.	AIIA-5.9.4	1999	Recognition and management of pesticide poisonings. EPA Manual, fifth edition, chapter 17, 1999, 169-182 not GLP, published TOX2002-207	N	-
Rodenberg, H.D., Chang, C.C., Watson, W.A.	AIIA-5.9.2	1989	Zinc phosphide ingestion: A case report and review. Vet. Hum. Toxicol., 31, 6, 1989, 559-562 not GLP, published TOX2002-200	N	-
Roy, B.C.	AIIA-5.2.3	1998	Acute inhalation toxicity of Aluminium phosphide technical in rats. 366 not GLP, unpublished TOX2006-215	Y	UPL
SanSebastian, J.R.	AIIA-5.4.1	1990	Structural chromosome aberration in Chinese hamster ovary (CHO) cells induced by hydrogen phosphide (PH <sub>3</sub> ). (in vitro). PH 320-DA-001-89 GLP, unpublished TOX2001-686	Y	PSA
Sarma, P.S.A., Narula, J.	AIIA-5.9.2	1996	Acute pancreatitis due to Zinc phosphide ingestion. Postgraduate Med. J., 72, 1996, 237-238 not GLP, published TOX2006-26	N	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Schaefer, G.J.	AIIA-5.7; AIIA-5.8.2	1998	90-day inhalation neurotoxicity study of phosphine in rats Vol. 1 to 5. 750-003 GLP, unpublished TOX2006-176	Y	CAS
Schaefer, G.J.	AIIA-5.7	1998	Acute neurotoxicity study of phosphide in rats (delayed neurotoxicity following acute exposure). 750-002 GLP, unpublished TOX2000-97	Y	DET
Schaefer, G.J., Newton, P. E., Gruebbel, M.M. et al.	AIIA-5.7	1998	Acute and subchronic inhalation neurotoxicity of phosphine in the rat. Inhalation Toxicology, 10, 1998, 293-320 not GLP, published TOX2002-190	N	-
Schafer, E.W. and Bowles, W.A.	AIIA-5.2.1	1985	Acute oral toxicity and repellency of 933 chemicals to house and deer mice. Arch. Environ. Contam. Toxicol., 14, 1985, 111-129 not GLP, published TOX2002-168	N	-
Schnellhardt, M., Gebhardt, M., Bräter, M., et al.	AIIA-5.3.2	1985	Study on the subchronical toxicity of Aluminium phosphide - 90-day-test on growing wistar rats. not GLP, unpublished TOX2005-282	N	DET
Schroeder, R.E.	AIIA-5.6.2	1989	An inhalation developmental toxicity study of phosphine (PH <sub>3</sub> ) in rats. 89-3413 GLP, unpublished TOX2001-687	Y	PSA
Shadnia, S., Rahimi, M., Pajoumand, A., Rasouli, M.H., Abdollahi, M.	AIIA-5.9.5	2005	Successful treatment of acute aluminium phosphide poisoning: possible benefit of coconut oil. Human & Experimental Toxicology (2005) Vol.24, pp. 215-218 Unknown not GLP, published TOX2006-192	N	-
Shimizu, Y., Ogawa, Y., Tokiwa, K.	AIIA-5.2.3; AIIA-7.1.3	1982	Acute inhalation toxicity testing of hydrogen phosphide in rats. NRI 82-7489 not GLP, unpublished TOX2005-280	N	DET

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Singh, S., Di-lawari, J.B., Yashist, R. et al.	AIIA-5.9.6	1985	Aluminium phosphide ingestion. Br. Med. J., 290, 1110 not GLP, published TOX2007-177	N	-
Siwach, S.B., Yadav, D.R., Arora, B., Dalal, S.	AIIA-5.9.2	1988	Acute aluminium phosphide poisoning, an epidemiological, clinical, and histopathological study. Journal Association of Physicians India (1988) Vol. 36, pp. 594-6 Unknown not GLP, published TOX2006-191	N	-
Sorensen, K.J., et al.;	AIIA-5.9.3	1996	The effect of phosphine, smoking and age on stable chromosome aberration frequencies in agricultural workers. Environ. Mol. Mutagen. Abstr., 27, 1996, 64 not GLP, published TOX2006-29	N	-
Stankowski, L.F.	AIIA-5.4.1	1990	Ames/salmonella plate incorporation assay on hydrogen phosphide (PH <sub>3</sub> ). PH 301-DA-001-89 GLP, unpublished TOX2001-685	Y	DET
Stephen, F.	AIIA-5.2.1	2000	Acute oral toxicity of aluminium phosphide technical in rats (fixed dose method). 2565 GLP, unpublished TOX2006-210	Y	UPL
Stephen, F.	AIIA-5.2.2	2000	Acute dermal toxicity of Aluminium phosphide technical in rats. 2566 GLP, unpublished TOX2006-213	Y	UPL
Stephenson, J.B.P.	AIIA-5.9.2	1967	Zinc phosphide poisoning not GLP, published TOX96-52073	N	-
Sterner, W., Chibanguza, G.	AIIA-5.2.1	1980	Acute oral toxicity of 1 % Magnesiumphosphid in vaseline in rats. 1-4-666-79 not GLP, unpublished TOX2000-89	N	CFW
Sterner, W., Stiglic, A.	AIIA-7.1.1	1977	Acute oral toxicity of "Aluminiumphosphid" in rats. 0-0-51-77 not GLP, unpublished TOX2006-981	N	DET

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Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Suman, R.L. Savani, M.	AIIA-5.9.5	1999	Pleural effusion - A rare complication of Aluminium phosphide poisoning. Indian Pediatrics, 36, pp 1161-1163 not GLP, published TOX2006-227	N	-
Sutou, S., Yamamoto, K., Shirakawa, H.	AIIA-5.4.1	1982	In vitro microbial mutagenicity testing of hydrogen phosphide. 82-7492 not GLP, unpublished TOX2005-283	N	DET
Telle, A.-M.C., De Saint Blanquat, G., Derauche, R. et al.	AIIA-5.5	1985	Nutritional and toxicological effects of long-term ingestion of phosphine-fumigated diet by the rat. Fd. Chem. Toxic., 23, 11, 1985, 1001-1009 not GLP, published TOX2002-831	N	-
Tkadlec, E., Gattermann, R.	AIIA-5.2.1	1993	Circadian changes in susceptibility of voles and golden hamsters to acute rodenticides. not GLP, unpublished TOX2002-170	N	CFW
Tucker, J.D., et al.	AIIA-5.9.3	2003	Multi-endpoint biological monitoring of phosphine workers. Mutat. Res., 536, 2003, 7-14 not GLP, published TOX2006-31	N	-
Tucker, J.D., Moore, D.H. Ramsay, M.J., et al.;	AIIA-7.2.1.2	2003	Multi-endpoint biological monitoring of Phosphine workers. Mutation Research, 536, 2003, 7-14 not GLP, published TOX2005-336	N	-
Venugopala Rao, K.	AIIA-5.2.1; AIIA-5.3.1; AIIA-5.3.2; AIIA-7.1.1	1999	Acute oral toxicity study with Polytanol in Wistar rats. 2739/99 GLP, unpublished TOX2000-105	Y	CFW
Venugopala Rao, K.	AIIA-5.2.3; AIIA-5.3.3; AIIA-7.1.3	2001	Acute inhalation toxicity study with Polytanol in Wistar rats. 3078/00 GLP, unpublished TOX2002-822	Y	CFW
Waritz, R.S., Brown, R.M.	AIIA-5.2.3	1975	Acute and subacute inhalation toxicities of phosphine, phenylphosphine and triphenylphosphine. Am. Ind. Hyg. Assoc. J., 36, 1975, 452-458 not GLP, published TOX2002-828	N	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>5</sup>
Waritz, R.S., Brown, R.M.	AIIA-5.2.3	1975	Acute and subacute inhalation toxicities of phosphine, phenylphosphine and triphenylphosphine. Am. Ind. Hyg. Assoc., 36, 1975, 452-458 not GLP, published TOX2002-176	N	-
Weller, D.	AIIA-5.9.5	1982	Toxicology of hydrogen Phosphide (Phosphine) - Therapy of poisoning. not GLP, published TOX2005-306	N	-
WHO - World Health Organisation	AIIA-5.1; AIIA-5.3; AIIA-5.6.2; AIIA-5.9.1; AIIA-5.9.2	1988	Environmental Health Criteria 73 - Phosphine and selected metal phosphides (Page 1-100). IPCS INCHEM, Environmental Health Criteria 73, WHO, Geneva, 1-100 not GLP, published TOX2005-1201	N	-
Wilson, R., Lovejoy, F.H., Jaeger, R.J., Landrigan, P.L.	AIIA-5.9.2	1980	Acute phosphine poisoning aboard a grain freighter. Epidemiologic, clinical and pathological findings. JAMA, 244, 148-150 not GLP, published TOX2007-172	N	-
Zipf, K.E. Arndt, T. Heintz, R.	AIIA-5.9.2	1967	Clinical observation of a case of Phostoxin poisoning. Springer Verlag not GLP, published TOX2005-287	N	-

#### Codes of owner

CAS: CASA BERNADO LTDA  
CFW: Chemische Fabrik Wülfel  
DET: Detia Freyberg GmbH  
PSA: Prosanitas GmbH  
UPL: United Phosphorus Ltd.

**A.7 Residue data (Annex IIA 6; Annex IIIA 8 and 12.2)**

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>6</sup>
Grantzau, E.	AIIA-6.3; AIIIA-8.5	1996	Untersuchungen mit aufbereiteten Phosphatproben (Dicalciumphosphat). Translation: Studies with phosphate sample preparations (dicalcium phosphate). not GLP, published RIP2005-117	N	-
Grantzau, E.	AIIIA-8.6	2004	Proposed residue definition and proposed maximum residue levels (MRLs). not GLP, unpublished RIP2005-144	N	CFW
Hilton, H.W., Mee, J.M.L.	AIIA-6.1	1972	Studies with radioactive phosphine 32P in sugarcane. J. Agric. Food Chem, Vol. 20, No. 2, pp 334-336 Unknown not GLP, published RIP2006-206	N	-
Koch, E.	AIIA-6.4; AIIA-6.5.1; AIIA-6.5.2; AIIIA-8.4; AIIIA-8.5	1981	Chemische Eigenschaften und ökologische Wirkungen von Polytanol. Translation: Chemical properties and ecological effects of Polytanol. P W 81 not GLP, unpublished RIP2005-121	N	CFW
Köhler, U.	AIIA-6.7	1999	Maximum residues recommendation. not GLP, unpublished RIP2005-122	N	CFW
Köhler, U.	AIIA-6.10; AIIIA-8.9	2000	Summary and evaluation of residue data. not GLP, unpublished RIP2005-123	N	CFW
Köhler, U.	AIIIA-8.1	2004	Supplementary studies on metabolism, distribution and expression of residues in plants or livestock. not GLP, unpublished RIP2005-143	N	CFW
Köhler, U.	AIIIA-8.6	2004	Proposed residue definition and proposed maximum residue levels (MRLs). not GLP, unpublished RIP2005-1331	N	CFW
Köhler, U.	AIIIA-8.9	2004	Summary and evaluation of residue data. not GLP, unpublished RIP2005-150	N	CFW

<sup>6</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>6</sup>
Martens-Menzel, R.	AIIA-6.0; AIIIA-8.0	2000	Report of Examination 98/2 (Storage Stability of Polytanol Pellets). GLP, unpublished RIP2005-112	Y	CFW
Martens-Menzel, R.	AIIA-6.0; AIIIA-8.0	1998	Report of Examination 98/1 (Storage Stability of Polytanol Pellets). GLP, unpublished RIP2005-111	Y	CFW
Martens-Menzel, R. et al.	AIIA-6.3; AIIA-6.4; AIIA-6.5; AIIA-6.7; AIIA-6.8; AIIIA-8.4; AIIIA-8.5; AIIIA-8.7	1995	Prüfung des Verbleibs von Phosphorwasserstoffrückständen in Gemüsekulturen nach Anwendung von Rodentiziden. Translation: Phosphine residues in vegetables after soil fumigation for rodent control. Nachrichtenbl. Deut. Pflanzenschutzd., 47, 1995, 315-320 not GLP, published RIP2005-120	N	-
Martens-Menzel, R. et al.	AIIA-6.3; AIIA-6.4; AIIIA-8.3	1994	Rückstandsverhalten von Phosphorwasserstoff in Rettichen und Möhren nach Begasung zur Bekämpfung der Wühlmaus. Translation: Residue behaviour of phosphor-hydrogen in radish and carrot following gassing in vole control. Mitt. a. d. Biol. Bundesanst., 1994, 197 H 301, 1994 not GLP, published RIP2005-119	N	-
Noack, S.	AIIA-6.1	1984	Decomposition of phosphine in treated foods as related to storage temperature and aeration. Zeitschrift für Lebensmittel- Untersuchung und Forschung, 178, 1984, 31-37 178,31-37 not GLP, published RIP2002-312	N	-
Noack, S., Reichmuth, Ch.	AIIA-6.1; AIIA-6.2; AIIA-6.3	1982	Bestimmung von Schwellwerten für die Schädigung von tierischen und pflanzlichen Organismen durch Phosphorwasserstoff und Methylbromid. II Untersuchungen an Brunnenkresse (Nasturtium officinale) und Kopfsalat (Lactuca sativa capitata). not GLP, unpublished RIP97-50061	N	CFW



Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>6</sup>
Noack, S., Reichmuth, C.	AIIA-6.1; AIIA-6.2	1981	Bestimmung von Schwellenwerten für die Schädigung von tierischen und pflanzlichen Organismen durch Phosphorwasserstoff und Methylbromid 1. Untersuchungen an Drosophila melano- gaster. Anz. Schädlingskunde, 54, 1981, 23-27 not GLP, published RIP2005-115	N	-
Noack, S.	AIIA-6.1	1983	Relationship of phosphine residues after fumi- gation to concentration, time of exposure and length of storage. Zeitschrift für Lebensmittel- Untersuchung und Forschung, 177, 1983, 87-93 177,87-93 not GLP, published RIP2002-313	N	-
WHO	AIIIA-8.4	1988	Environmental Health Criteria 73-Phosphine and selected metal phosphides. Chemical Safety, 62 not GLP, published RIP2005-118	N	-
WHO Task group on Phosphine and Selected Metal Phosphides	AIIA-6.1	1988	International programme on chemical safety (IPCS), Environmental health criteria 73 - Phosphine and selected metal phosphides. International Programme on Chemical Safety (IPCS) Unknown not GLP, published RIP2006-207	N	-

#### Codes of owner

CFW: Chemische Fabrik Wülfel

**A.8 Environmental fate and behaviour (Annex IIA 7; Annex IIIA 9)**

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>7</sup>
Becker, K.H., et al.	AIIA-7.2.2	1984	Photochemical degradation in the gas phase. Methods of the ecotoxicological of chemicals, vol 6, 109, 1984, 180-183 #161 not GLP, published LUF2002-157	N	-
Calvert, J.G., Pitts, J.N.	AIIA-7.2.2	1966	Photochemistry. John Wiley & Sons, 204 #162 not GLP, published LUF2002-158	N	-
Fritz, B., et al	AIIA-2.10; AIIA-7.2.2	1982	Laboratory kinetic investigations of the tro- pospheric oxidation of selected industrial emis- sions. Physico-Chemical Behaviour of Atmospheric Pollutants, 1982, 192-202 not GLP, published LUF2002-39	N	-
Koch, E.	AIIA- 7.1.1.1.1; AIIA- 7.1.1.2.1; AIIA-7.1.3.3; AIIIA-9.1.1.1	1982	Messungen des Diffusionsstromes von PH <sub>3</sub> im Boden. not GLP, published BOD2005-67	N	-
Köhler, U.	AIIA-7.3	2004	Definition of the residue. not GLP, unpublished BOD2005-71	N	CFW
Köhler, U.	AIIIA-9.1.3	1990	Estimation of predicted environmental con- centration in soil (PECsoil). not GLP, unpublished BOD2005-79	N	CFW
Martens- Menzel, R.	AIIA-7.2.1.1	2000	Report about the gas development from soil fumigants containing phosphides. GLP, unpublished WAS2005-48	Y	CFW

<sup>7</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>7</sup>
Vahldiek, M.	AIIA- 7.1.1.2.2; AIIIA-9.1.1.2	1985	Untersuchung zur Beständigkeit von Phosphorwasserstoff (PH <sub>3</sub> ) im humusfreien Mineralboden. not GLP, unpublished BOD97-00505	Y	CFW

#### Codes of owner

CFW: Chemische Fabrik Wülfel

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**A.9 Ecotoxicology (Annex IIA 8; Annex IIIA 10)**

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>8</sup>
Anonymous	AIIA-8.1.2	1978	A Zinc phosphide dietary LC50 study against bobwhite quail and mallard ducks. Dept. of Interior, Fish and Wildlife service, 1-10 not GLP, published AVS2006-179	N	-
Anonymous	AIIA-8.2.1; AIIIA-10.2.1	2005	Health and safety Data Sheet acc. 91/155 and 93/112 EEC, Detia sachet-roll. not GLP, unpublished WAT2007-183	N	CFW
Blaxland, J.D., Gordon, R.F.	AIIA-8.1.1	1945	Zinc phosphide poisoning in poultry. The veterinary Journal, 101, 108-110 not GLP, published AVS2007-63	N	-
Daum, R.J., Killcreas, W.	AIIA-8.1.2	1966	Two computer programs for probit analysis. Bull. Entomol.Soc.Am, 12, 4, 1966, 365-369 not GLP, published AVS2007-64	N	-
Dresbach, C.	AIIA-8.5; AIIIA-10.7.1	1990	Berichterstattung über die Auswirkungen von Polytanol auf die Aktivität der Bodenmikroflora nach BBA-Richtlinie Teil VI 1 -1. not GLP, unpublished BMF2005-14	Y	CFW
Glindemann, D., Bergmann, A.	AIIA-8.7	1995	Spontaneous emission of phosphane from animal slurry treatment processing. Zentr.Hyg.Umweltmed., 198, 49-56 not GLP, published WAT2003-238	N	-
Glindemann, D., et al	AIIA-8.7	1996	Free phosphine from the anaerobic biosphere. Environ.Sci.Pollut., 3, 17-19 not GLP, published WAT2003-237	N	-
Grunert, B.	AIIIA-10.6.1	1991	Toxizität für Regenwürmer von Polytanol. 91 20 43 031 GLP, unpublished ARW2005-25	Y	CFW
Hill, E.F. et al.	AIIA-8.1.3	1975	Lethal dietary toxicities of environmental pollutants to birds. not GLP, published AVS96-0007975	N	CFW

<sup>8</sup> Only notifier listed

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>8</sup>
Hill, E.F., Camardese, M.B.	AIIA-8.1.2	1986	Lethal dietary toxicities of environmental contaminants and pesticides to Coturnix. USDI Fish Wildl Service, Fish Wildlife Technical Report , 2, 1986 not GLP, published AVS96-00078	N	-
Ikedda, S.	AIIA-8.1.1 AIIA-8.1.4	1971	The toxic effect of Zn <sub>3</sub> P <sub>2</sub> (zinc phosphide) on penned quail, Coturnix coturnix japonica, not GLP, published AVS2002-21	N	CFW
Klimmer, O.R.	AIIA-8.1.1	1969	Contribution to the study of the action of phosphine (ph <sub>3</sub> ) the question of the so-called chronic phosphine poisoning. Arch.Toxi-kol., 24, 1969, 56-59 not GLP, published AVS2005-24	N	-
Köhler, U.	AIIA-8.7	1999	Effects on biological effluent treatment. not GLP, unpublished WAT2005-46	N	CFW
Köhler, U.	AIIIA-10.1	2002	Risk assessments for birds. not GLP, unpublished AVS2005-29	N	CFW
Köhler, U.	AIIIA-10.2	2002	Effects on aquatic organisms. not GLP, unpublished WAT2005-60	N	CFW
Köhler, U.	AIIIA-10.3	2002	Effects on terrestrial vetebrates other than birds. not GLP, unpublished AVS2005-30	N	CFW
Matschke, G.H.	AIIA-8.1.2	1978	A Zinc phoshide dietary LC50 study against bobwhite quail. Dept. of Interior, Fish and Wildlife service, 1-10 not GLP, published AVS2006-180	N	-
Shivanandappa, T.	AIIA-8.1.1	1979	Rodenticidal Poisoning of non target animals: Acute oral toxicity of zinc phosphide to poultry. Bull.Environm.Contam., 23, 452-455 not GLP, published AVS2007-65	N	-
WHO	AIIA-8.1.1	1988	Environmental Health Criteria 73-Phosphine and selected metal phosphides. Chemical Safety, 56-59 not GLP, published AVS2005-25	N	-

Author(s)	Annex point/ reference number	Year	Title source (where different from company) report no. GLP or GEP status (where relevant), published or not BVL registration number	Data protection claimed  Y/N	Owner <sup>8</sup>
WHO	AIIA-8.2.1	1988	Environmental Health Criteria 73-Phosphine and selected metal phosphides. Chemical Safety not GLP, published WAT2005-45	N	-

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