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OPPT Document Control Office (DCO)
EPA East Room 6428
1201 Constitution Ave., N.W.
Washington DC, 20460
Attn: 8(d) Health and Safety Reporting Rule (Notification/Reporting)

Re : Submission of TSCA 8(d) Health and Safety Study reports – BASF Corporation

Dear 8(d) Coordinator:

In compliance with 40 CFR 716, BASF hereby submits requested Health and Safety Study reports for substances recently added to the list of subject chemicals (71 FR 47130).

This submission contains information for the following list of substances:

62-56-6	121-69-7	1738-25-6
83-41-0	127-68-4	3039-83-6
84-69-5	131-57-7	4316-73-8
96-22-0	137-20-2	61788-76-9
104-93-8	645-62-5	68188-18-1
110-18-9	939-97-9	68609-05-2
111-44-4	1111-78-0	68909-77-3

Should you have questions regarding this submission, please do not hesitate to contact me at 734-324-6593 or email kara.sparks@basf.com .

Sincerely,

BASF Corporation

Kara Sparks
Manager, North America
Product Regulatory Centre of Expertise

CONTAINS NO CBI

Contains No CBI

BASF Corporation
100 Campus Drive
Florham Park, NJ 07932
Tel: (800) 526-1072
www.basf.com/usa

302148

I U C L I D

D a t a S e t

Existing Chemical	ID: 110-18-9
CAS No.	110-18-9
Generic name	Ethylenediamine, N, N', N', N'-tetramethyl
EC No.	203-744-6
Molecular Weight	116.21 g/mol
Molecular Formula	C6 H16 N2

Producer Related Part

Company:	BASF AG
Creation date:	02-JUN-2004

Substance Related Part

Company:	BASF AG
Creation date:	02-JUN-2004

Memo:	master

Printing date:	17-JAN-2007
Revision date:	
Date of last Update:	**17-JAN-2007**

Number of Pages:	**21**

Chapter (profile):	Chapter: 1, 2, 3, 4, 5, 6, 7, 8, 10
Reliability (profile):	Reliability: without reliability, 1, 2, 3, 4
Flags (profile):	Flags: TSCA 8d

1.0.1 Applicant and Company Information

-

1.0.2 Location of Production Site, Importer or Formulator

-

1.0.3 Identity of Recipients

-

1.0.4 Details on Category/Template

-

1.1.0 Substance Identification

-

1.1.1 General Substance Information

-

1.1.2 Spectra

-

1.2 Synonyms and Tradenames

-

1.3 Impurities

-

1.4 Additives

-

1.5 Total Quantity

-

1.6.1 Labelling

-

1.6.2 Classification

-

1.6.3 Packaging

-

1.7 Use Pattern

-

1.7.1 Detailed Use Pattern

-

1.7.2 Methods of Manufacture

-

1.8 Regulatory Measures

-

1.8.1 Occupational Exposure Limit Values

-

1.8.2 Acceptable Residues Levels

-

1.8.3 Water Pollution

-

1.8.4 Major Accident Hazards

-

1.8.5 Air Pollution

-

1.8.6 Listings e.g. Chemical Inventories

-

1.9.1 Degradation/Transformation Products

-

1.9.2 Components

-

1.10 Source of Exposure

-

1.11 Additional Remarks

-

1.12 Last Literature Search

-

1.13 Reviews

-

2.1 Melting Point

-

2.2 Boiling Point

-

2.3 Density

-

2.3.1 Granulometry

-

2.4 Vapour Pressure

-

2.5 Partition Coefficient

-

2.6.1 Solubility in different media

-

2.6.2 Surface Tension

-

2.7 Flash Point

-

2.8 Auto Flammability

-

2.9 Flammability

-

2.10 Explosive Properties

-

2.11 Oxidizing Properties

-

2.12 Dissociation Constant

-

2.13 Viscosity

-

2.14 Additional Remarks

-

3.1.1 Photodegradation

-

3.1.2 Stability in Water

-

3.1.3 Stability in Soil

-

3.2.1 Monitoring Data (Environment)

-

3.2.2 Field Studies

-

3.3.1 Transport between Environmental Compartments

-

3.3.2 Distribution

-

3.4 Mode of Degradation in Actual Use

-

3.5 Biodegradation

Type: aerobic
Inoculum: other: Effluent of sewage treated plant, domestic
Concentration: 20 mg/l related to DOC (Dissolved Organic Carbon)
32.8 mg/l related to Test substance
Contact time: 28 day(s)
Degradation: = 7 % after 28 day(s)
Result: other: poorly biodegradable
Control Subst.: Benzoic acid, sodium salt
Kinetic:

1 day(s)	1 %
7 day(s)	99 %

Method: ISO 7827 "Evaluation in an aqueous medium of the 'ultimate' aerobic biodegradability of organic compounds - method by anlaysis of dissolved organic carbon (DOC)"
GLP: no
Test substance: other TS

Method: Guideline ISO 7827 comparable to OECD 301 A
Result: No inhibition of the inoculum were found by the test substance. The biodegradation degree of the inhibition control was 64 % DOC removal after 28 days. The test concentrations of the test substance and the control substance benzoic acid were added each 20 mg/l related to the DOC.

Furtheron no physical-chemical elimination of the test substance were found in the control assay. The microbial activity was prevent by adding HgCl2.
Test condition: Effluent from a municipal waste water treatment plant of Edenkoben was used as the inoculum.
Stock solution was 0.1292 g ad 4.0 l.
Also in compliance with the guideline 4 blanks, 2 positive controls with sodium benzoate, 2 physical/chemical controls and 2 inhibition controls were conducted. The calculation of the elimination degree based on the mean values.
The determination of the DOC was carried out with the instrument DC 90 Dohrmann.
Test substance: N,N,N',N'-Tetramethylethylenediamine, no further information are available
Reliability: (2) valid with restrictions
Scientifically acceptable
Flag: TSCA 8d
17-JAN-2007 (1)

Type: aerobic
Inoculum: activated sludge, domestic
Concentration: 363 mg/l related to DOC (Dissolved Organic Carbon)
Contact time: 28 day(s)
Degradation: 8 % after 28 day(s)
Result: other: poorly biodegradable
Kinetic:

1 day(s)	0 %
4 day(s)	0 %
15 day(s)	0 %
20 day(s)	0 %
28 day(s)	8 %

Control Subst.: Diethylene glycol
Kinetic:

4 day(s)	0 %
11 day(s)	99 %

Method: other: EEC 79-831, Annex V, comparable to OECD 302 B
Year: 1990
GLP: no
Test substance: other TS

Result: - kinetic of the elimination:

time (days)	TS1	TS2	TSmean	Bl1	Bl2	RS1	RS2	pH
	(DOC mg/l)							
0	386	379	383	-	-	405	412	-
3(*)	362	364	363	4	4	384	383	7.2
1	373	370	372	3	3	377	379	6.6
4	370	371	371	7	8	376	376	6.2
6	365	370	368	4	4	332	330	7.0
8	375	371	373	8	7	50	54	6.9
11	394	395	395	5	5	9	9	6.9
13	391	392	382	4	4	-	-	6.8
15	387	391	389	4	5	-	-	6.8
20	397	397	397	5	5	-	-	6.8
28	336	336	336	6	6	-	-	7.0

(*) hours
TS = test substance.
RS = reference substance
Bl = Blank
TS/RS(ref) = reference value to calculate the elimination

time (days)	Degradation (% DOC Elimination) TSmean	RSmean
0	-	-
3(*)	-	-2
1	-2	0
4	-2	0
6	-1	12
8	-3	87

11	-9	99
13	-5	
15	-7	
20	-10	
28	8	

- comment on the calculation of the elimination (%): samples were taken at regular intervals and the sample volume (approx. 50 ml) was always replaced with tap water. Thus, the starting volume remained constant during the whole test (approx. 4000 ml), but the reference value to calculate the elimination degree had to be corrected after each sampling.

Test condition: test conditions:
- number of replicates: test substance: 2 flasks, reference substance: 2 flasks, blank: 2 flasks
- test substance: DOC: TS1: 386 mg/l, TS2: 379 mg/l
- liquid volume: 4000.0 ml
- inoculum: 1 g/L dry weight
- measurements: DOC

Test substance: N,N,N',N'-Tetramethylethylenediamine, no further information are available

Reliability: (2) valid with restrictions
According to international guideline.

Flag: TSCA 8d

17-JAN-2007 (2)

Type: aerobic
Inoculum: other: Effluent of sewage treated plant, domestic
Concentration: 18.8 mg/l related to DOC (Dissolved Organic Carbon)
Contact time: 28 day(s)
Degradation: = 10 % after 28 day(s)
Result: other: poorly biodegradable
Kinetic: 7 day(s) 99 %

Method: Directive 92/69/EEC, C.4-B
GLP: no
Test substance: other TS

Method: Directive 92/69/EEC, C.4-B is comparable to OECD guideline 301 E, modified OECD Screening Test

Result: No physical/chemical elimination were observed after 28 d test duration. The microbial activity was prevent by adding HgCl2. A inhibition control assay were conducted and show no adverse effect after 7 days. The test substance and the reference substance were tested in equal concentrations. The elimination degree was 66 % DOC removal.

Test condition: Effluent from a municipal waste water treatment plant of Deidesheim was used as the inoculum.

Test substance: N,N,N',N'-Tetramethylethylenediamine, product no. 763457

Reliability: (2) valid with restrictions
Scientifically acceptable

Flag: TSCA 8d

17-JAN-2007 (3)

3.6 BOD5, COD or BOD5/COD Ratio

-

3.7 Bioaccumulation

-

3.8 Additional Remarks

-

AQUATIC ORGANISMS

4.1 Acute/Prolonged Toxicity to Fish

-

4.2 Acute Toxicity to Aquatic Invertebrates

Type: static
Species: Daphnia magna (Crustacea)
Exposure period: 48 hour(s)
Unit: mg/l **Analytical monitoring:** no
EC0: = 1
EC50: = 35.8
EC100: > 100
Limit Test: no

Method: other: Screening similiar to OECD 202
Year: 2003
GLP: no

Method: The screening test was basically orientated at OECD guideline 202.
Result: Concentration response relationship:
Mobile daphnids after 48 hours:

Control (0 mg/l) / 20
0.01 mg/l / 20
0.1 mg/l 20
1 mg/l / 20
10 mg/l / 17
100 mg/l / 4

Test condition: Test organisms:
a) Daphnia magna Straus was originally supplied from "Institut National de Recherche Chimique appliquee, France", and has been breeded from 1978 in the Laboratories of BASF.
b) 2 - 24 hours old

Test conditions:
a) Dilution water chemistry: M4 medium
b) Test temperature: 293 K
c) Exposure vessels: 20 ml glass tubes with flat bottom, 10 ml test volume
d) Light conditions: 16:8 hours, diffuse light
e) Number of Replicates: 4
f) Individuals /replicate: 5
g) Preparation of stock solution: Concentration of the stock solution was 100 mg/l.
Dilution series with dilution water gave the following nominal test concentrations: 100, 10, 1, 0.1, 0.01 mg/l.

Measurements:
a) Ph values and dissolved oxygen: After 0 and 48 hours, but

not reported
b) Mobile daphnids: after 0, 24 and 48 hours (24h value not reported)

Test substance: N,N,N',N'-tetramethylethylenediamine, CAS-No. 110-18-9, purity: not reported

Reliability: (2) valid with restrictions
Screening test, scientifically acceptable, guideline-like study.

Flag: TSCA 8d

01-DEC-2006 (4)

4.3 Toxicity to Aquatic Plants e.g. Algae

-

4.4 Toxicity to Microorganisms e.g. Bacteria

-

4.5 Chronic Toxicity to Aquatic Organisms

4.5.1 Chronic Toxicity to Fish

-

4.5.2 Chronic Toxicity to Aquatic Invertebrates

-

TERRESTRIAL ORGANISMS

4.6.1 Toxicity to Sediment Dwelling Organisms

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4.6.2 Toxicity to Terrestrial Plants

-

4.6.3 Toxicity to Soil Dwelling Organisms

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4.6.4 Toxicity to other Non-Mamm. Terrestrial Species

-

4.7 Biological Effects Monitoring

-

4.8 Biotransformation and Kinetics

-

4.9 Additional Remarks

-

5.0 Toxicokinetics, Metabolism and Distribution

-

5.1 Acute Toxicity

5.1.1 Acute Oral Toxicity

-

5.1.2 Acute Inhalation Toxicity

-

5.1.3 Acute Dermal Toxicity

-

5.1.4 Acute Toxicity, other Routes

-

5.2 Corrosiveness and Irritation

5.2.1 Skin Irritation

-

5.2.2 Eye Irritation

-

5.3 Sensitization

-

5.4 Repeated Dose Toxicity

-

5.5 Genetic Toxicity 'in Vitro'

-

5.6 Genetic Toxicity 'in Vivo'

-

5.7 Carcinogenicity

-

5.8.1 Toxicity to Fertility

-

5.8.2 Developmental Toxicity/Teratogenicity

-

5.8.3 Toxicity to Reproduction, Other Studies

-

5.9 Specific Investigations

-

5.10 Exposure Experience

-

5.11 Additional Remarks

-

6.1 Analytical Methods

-

6.2 Detection and Identification

-

7.1 Function

-

7.2 Effects on Organisms to be Controlled

-

7.3 Organisms to be Protected

-

7.4 User

-

7.5 Resistance

-

8.1 Methods Handling and Storing

-

8.2 Fire Guidance

-

8.3 Emergency Measures

-

8.4 Possib. of Rendering Subst. Harmless

-

8.5 Waste Management

-

8.6 Side-effects Detection

-

8.7 Substance Registered as Dangerous for Ground Water

-

8.8 Reactivity Towards Container Material

-

(1) BASF AG (1989). Department of Ecology, unpublished data, Poject No. 01.89/2043, Institut Kuhlmann sponsored by BASF AG, 03.April 1990

(2) BASF AG (1990). Biologische Abbaubarkeit. Department of Ecology, unpublished data, Project No. 01.89/2043, Institut Kuhlmann sponsored by BASF AG, 03 Apr 1990

(3) BASF AG (2006). Determination of the ready biodegradability. Reprint. Department of Ecology, unpublished report, 30. Oct 2006

(4) BASF AG (2003). Acute daphnia toxicity. Department of Product safety, unpublished report, 03/0318/50/s1, 18 apr 2003

10.1 End Point Summary

-

10.2 Hazard Summary

-

10.3 Risk Assessment

-

CAS Number	Product Name	Study Title	Report Date	Laboratory	Comment	Study Report attached?	Report No.
110-18-9	Tetramethylethylenediamine	Untersuchungsergebnisse im Daphnientest (Screening)	18 Dec 03	BASF	Screening	yes	7.1
110-18-9	Tetramethylethylenediamine	Biologsiche Abbaubarkeit im OECD 301 A + 302 B	03-Apr-90	BASF AG	2 tests in one report	yes	7.2
110-18-9	Tetramethylethylenediamine	Determination of the ready biodegradability 301 E	30 Oct 06	BASF AG	reprint	yes	7.3

7.1.

BASF AG

18.12.2003
Labor für experimentelle
Toxikologie und Ökologie
GV/TC – Z 570
Dr. Jatzek - Tel. 58048

UNTERSUCHUNGSERGEBNISSE IM DAPHNIENTEST
(Screening)

Projektnummer	:	03/0318/50/s1
Probenbezeichnung	:	N, N, N',N'-tetramethylethylenediamine
CAS-Nr.	:	110-18-9
Produkt-Nr.	:	10402067
Charge-Nr.	:	es liegen keine Angaben vor
Laborjournal	:	es liegen keine Angaben vor
Reinheitsgrad	:	es liegen keine Angaben vor
Konsistenz	:	flüssig
Löslichkeit in Wasser	:	im gewählten Konzentrationsbereich vollständig in M4-Medium löslich
Probenaufarbeitung	:	Die Prüfsubstanz wird ca. 10 min in M4-Medium gerührt. Es entsteht eine klare Lösung.
Konzentrationsbereich	:	100 mg/l | 10 mg/l | 1 mg/l | 0,1 mg/l | 0,01 mg/l
Prüfzeitraum	:	20.11.2003 – 22.11.2003
Prinzip	:	Hemmung der Schwimmfähigkeit von Daphnien unter dem Einfluß von Testgut im Vergleich zur Kontrolle
Methode	:	in Anlehnung an die OECD-Richtlinie 202
Spezies	:	*Daphnia magna* STRAUS
Inkubationsdauer	:	48 Stunden
gemessene Parameter	:	Schwimmfähigkeit der Daphnien nach 24 und 48 h, O_2-Gehalt und pH-Werte zu Beginn und am Ende der Inkubationszeit.

ERGEBNISSE

Die EC-Werte geben die Konzentrationen der Prüfsubstanz an, die nach 48 h keine* (EC_0), 50% (EC_{50}) bzw. 100% (EC_{100}) Hemmung der Schwimmfähigkeit im Vergleich zur unbehandelten Kontrolle verursachen.

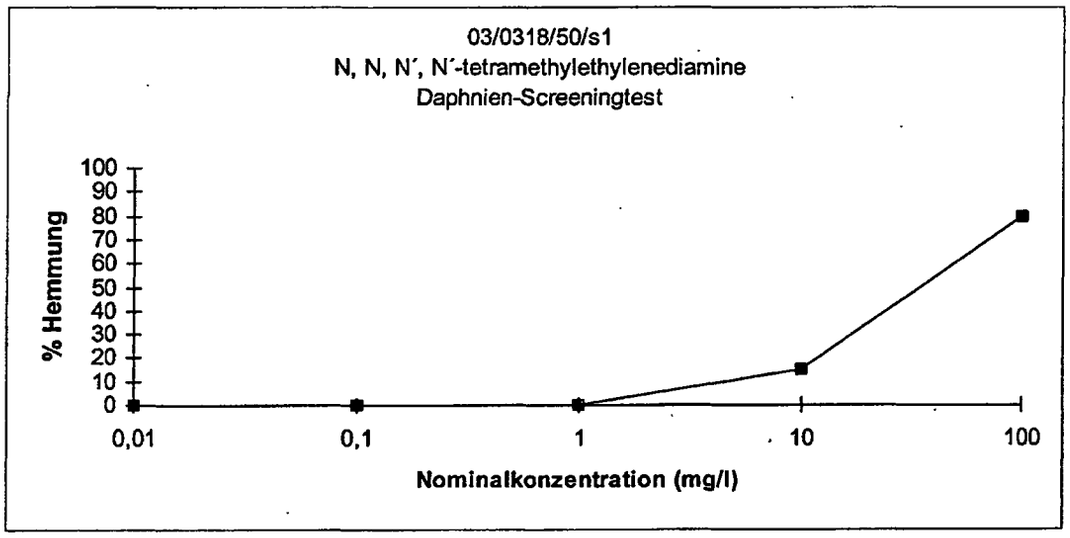
EC_0*	=	**1**	mg/l	(nominal)
EC_{50}	=	**35,8**	mg/l	(nominal)
EC_{100}	>	**100**	mg/l	(nominal)

* höchste geprüfte Konzentration, bei der ≤ 10% der Tiere schwimmunfähig sind.

Bemerkungen:
keine

Konzentrations-Wirkungsbeziehung nach 48 h:

Nominalkonzentration [mg/l]	Schwimmfähige Tiere (von 20)	Hemmung [%]
0 (Kontrolle)	20	0
100	4	80
10	17	15
1	20	0
0,1	20	0
0,01	20	0
100 neutralisiert	20	0
10 neutralisiert	20	0



18.12.03

Dr. Jatzek
(Prüfleiter)

Besteller : Dr. Biastoch, E-EDO/MQ – H 201

Die Kosten für die Untersuchung in Höhe von 800,-- € werden der Kostenstelle 43452 belastet.

7.2

INSTITUT KUHLMANN

BIOLOGISCHE ABBAUBARKEIT

Angaben zur Probe

Eingang	13.12.1989	Datum	3.4.1990
BASF-Bezeichnung	01.89/2043 N,N,N',N'-Tetramethylethylendiamin	Unser Zeichen File Lfd.Nr.	Dr.Ku/Rö AW 77 53
Menge	ca. 800 g in 1 l Metallflasche	Analysen - Nr.	2-1719/89
Haltbarkeit	lagerstabil		
Aussehen	farblose, klare Flüsigkeit		

Summenparameter

pH-Wert			
TOC	mg/g	610	
DOC	mg/g	610	
CSB	mgO_2/g	697	
BSB_5	mgO_2/g	<2	10.4.90 Ba
BSB_5/CSB	%		

Analysenwerte durch BASF ermittelt. Einwaage 1,0004 g/l.

Kurzzeitatmungstest ISO 8192

		Ansatz1	Ansatz2	Ansatz3	Ansatz4	Ansatz5	Ansatz6
Probe im Testansatz	g/l	1					
DOC, ber.	mg/l	610					
0.5 h Atmung	$mgO_2/l*h$	36,3					
0.5 h Bezugswert	$mgO_2/l*h$	38,3					
0.5 h Atmungsänderung	%	-5					
3.0 h Atmung	$mgO_2/l*h$	34,8					
3.0 h Bezugswert	$mgO_2/l*h$	34,4					
3.0 h Atmungsänderung	%	1					

EC_{20} aus Graphik

0.5 h Probe mg/l > 1000

3.0 h Probe mg/l > 1000

Institut Kuhlmann · Luitpoldstraße 190 · 6700 Ludwigshafen 14 · Telefon (0621) 69 10 51

INSTITUT KUHLMANN

Lfd. Nr. 53
Analysen - Nr. 2-1719/89

Erläuterungen zu ISO 8192
Testansatz mit Belebtschlamm (2x gewaschen) der Kläranlage Edenkoben vom 19.12.1989 mit 2,8 g/l TS. Test durchgeführt am 20.12.1989. Belebtschlamm - Konzentration im Testansatz 1,5 g/l TS.

Einwaage für Stammlösung 1.250 g Probe ad 1 Liter. Hiervon 80 ml (oderAliquot) unter Zusatz von eingestelltem Belebtschlamm ad 100 ml.

Methode ISO 8192, first edition 1986-07-15

Abbaubarkeit ISO 7827 Einwaage: 0,1292 g ad 4.0 l

		ØA	ØB	ØIH	ØPC
Anfangskonz. ber.	mg/l	19,7	19,7	39,7	19,7
Anfangskonz. gem.	mg/l	20,0	19,7	44,3	19,8

Messwerte der Prüfsubstanz

Datum	Tag	A 1 mg/l	A 2 mg/l	Ø A mg/l	B 1 mg/l	B 2 mg/l	Ø B mg/l	Ø Bl mg/l	D (A) %	D (B) %	D (T) %
4.1.1990	0	19,8	20,2	20,0	19,3	20,0	19,7	0,9	0	0	0
5.1.1990	1	20,8	20,0	20,4	21,0	20,1	20,6	1,8	2	-0	1
8.1.1990	4	20,3	21,4	20,9	23,0	23,3	23,2	2,0	1	-13	-6
11.1.1990	7	18,6	18,3	18,5	19,0	18,6	18,8	0,6	7	3	5
18.1.1990	14	20,9	21,0	21,0	21,1	21,0	21,1	1,2	-4	-6	-5
25.1.1990	21	17,8	19,1	18,5	19,2	19,8	19,5	1,1	9	2	5
31.1.1990	27	21,5	23,8	22,7	21,2	21,4	21,3	2,1	-8	-3	-5
1.2.1990	28	19,8	19,2	19,5	21,0	19,5	20,3	2,3	10	4	7

Messwerte der Kontrollansätze

Datum	Tag	Bl A 1 mg/l	Bl A 2 mg/l	Bl B 1 mg/l	Bl B 2 mg/l	K 1 mg/l	K 2 mg/l	D (K) %	PC 1 mg/l	PC 2 mg/l	D (PC) %	IH 1 mg/l	IH 2 mg/l	D (IH) %
4.1.1990	0	0,9	0,9	0,9	1,0	19,8	20,3	0	19,2	20,4	0	44,1	44,5	0
5.1.1990	1	1,8	1,7	1,7	2,0	21,1	20,5	1	21,1	20,2	-4	40,4	39,8	12
8.1.1990	4	1,9	1,9	2,0	2,2	4,2	4,0	89	23,1	23,8	-18	23,1	22,9	52
11.1.1990	7	0,4	0,3	0,9	0,9	0,8	0,8	99	22,0	21,0	-9	20,0	19,6	56
18.1.1990	14	1,3	1,2	1,1	1,0				22,1	21,8	-11	21,2	21,2	54
25.1.1990	21	1,2	1,1	1,1	1,0				19,6	19,6	1	18,5	17,7	61
31.1.1990	27	2,0	2,1	2,0	2,3				21,0	23,4	-12	16,1	17,0	67
1.2.1990	28	1,9	1,9	2,7	2,6				22,2	21,9	-11	17,9	17,5	64

INSTITUT KUHLMANN

Lfd. Nr. 53
Analysen - Nr. 2-1719/89

Erläuterungen
A 1 u. A 2 = DOC im Testansatz 1, ØA = Ø - DOC von A 1 u. A 2, B 1 u. B 2 = DOC im Testansatz 2, ØB = Ø - DOC von B 1 u. B 2, ØBl = Ø-DOC von Blindwertansatz A u. B, D(A) = DOC - Abbaugrad von Testansatz 1, D(B) = DOC - Abbaugrad von Testansatz 2, D(T) = Ø - DOC - Abbaugrad von Testansatz 1 u. 2.

Bl A 1, Bl A 2, Bl B 1, Bl B 2 = DOC im Blindwertansatz A u. B, K 1 u. K 2 = DOC im Kontrollsubstanzansatz mit 20 mgC/l (Na-benzoat), D(K) = DOC-Abbaugrad der Kontrollsubstanz, PC 1 u. PC 2 = DOC im phys. chem. Kontrollansatz (mit $HgCl_2$), ØPC = Ø - DOC von PC1 u. PC2, D(PC) = DOC-Eliminationsgrad im phys. chem. Kontrollansatz, IH 1 u. IH 2 = DOC im Inhibitionsansatz mit 20 mgC/l (Na-benzoat), ØIH = Ø - DOC von IH1 u. IH2, D(IH) = DOC - Eliminationsgrad im Inhibitionsansatz.

Kläranlagenablauf der Kläranlage Edenkoben vom 4.1.1990 als Inoculum. Statischer Test im 1 l-Ansatz mit 0.5 ml/l Inoculum. Methode ISO 7827, first edition 1984-10-15. Bestimmung des DOC mit DC 90 Dohrmann.

Abbautest Standversuch Einwaage: 2,606 g im 4 l-Ansatz

Anfangskonz., ber.	CA'	mg/l	397
Anfangskonz., gem.	C0	mg/l	383
Korr. Anfangskonz. (CA''= C0 x 0.924)	CA''	mg/l	353
Konz. nach 3 h (- ØBl), gem.	CA	mg/l	358

Meßwerte der Prüfsubstanz

Datum	Tag	T 1 mg/l	T 2 mg/l	Ø T mg/l	Ø Bl mg/l	D (T) %	D' (T) %	D'' (T) %	pH	PC 1 mg/l	PC 2 mg/l	D (PC) %
15.2.1990 gem.	0	386	379	383	-	-	-	-	-			
15.2.1990 korr.	0	357	350	353	-	-	11	0	-	-	-	-
15.2.1990	0,125	362	364	363	5	0	10	-1	7,2			
16.2.1990	1	373	370	372	5	-2	8	-4	6,6			
19.2.1990	4	370	371	371	5	-2	8	-3	6,2			
21.2.1990	6	365	370	368	5	-1	9	-3	7,0			
23.2.1990	8	375	371	373	5	-3	7	-4	6,9			
26.2.1990	11	394	395	395	5	-9	2	-10	6,9			
28.2.1990	13	381	382	382	5	-5	5	-6	6,8			
2.3.1990	15	387	391	389	5	-7	3	-9	6,8			
5.3.1990	18	383	382	383	5	-5	5	-7	6,8			
7.3.1990	20	397	397	397	5	-10	1	-11	6,8			
9.3.1990	22	385	390	388	5	-7	4	-8	6,8			
12.3.1990	25	360	368	364	5	-0	10	-2	6,9			
14.3.1990	27	338	336	337	5	7	17	6	7,0			
15.3.1990	28	336	336	336	5	8	17	6	7,0			

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Meßwerte der Kontrollansätze

Datum	Tag	Bl 1 mg/l	Bl 2 mg/l	K 1 mg/l	K 2 mg/l	D (K) %
15.2.1990 gem.	0	-	-	405	412	-
15.2.1990 korr.	0	-	-	374	381	0
15.2.1990	0,125	3,9	3,8	384	383	-2
16.2.1990	1	3,2	3,4	377	379	-0
19.2.1990	4	6,7	8,1	376	376	0
21.2.1990	6	4,1	3,7	332	330	12
23.2.1990	8	7,8	7,0	50	54	87
26.2.1990	11	5,0	5,1	9	9	99
28.2.1990	13	4,1	4,2			
2.3.1990	15	4,2	4,5			
5.3.1990	18	5,0	5,1			
7.3.1990	20	5,2	5,3			
9.3.1990	22	5,6	5,6			
12.3.1990	25	5,5	5,6			
14.3.1990	27	6,2	6,2			
15.3.1990	28	6,0	6,3			

Erläuterungen
T 1 u. T 2 = DOC im Testansatz, Ø T = Ø-DOC im Testansatz, Ø Bl = DOC im Blindwertansatz (Mittelwert über die gesamte Versuchsdauer), D (T) = DOC-Abbaugrad (Bezugswert CA), D´ (T) = DOC - Eliminationsgrad (Bezugswert CA´), D´´ (T) = DOC - Eliminationsgrad (Bezugswert CA´´), pH = pH - Wert im Testansatz vor Neutralisation, PC 1 u. PC 2 = DOC im phys. chem. Kontrollansatz (mit $HgCl_2$), D (PC) = DOC - Eliminationsgrad im PC - Ansatz.

Bl 1 u. Bl 2 = DOC im Blindwertansatz, K 1 u. K 2 = DOC im Kontrollsubstanzansatz mit 400 mgC/l (Diethylenglycol), D (K) = DOC Abbaugrad der Kontrollsubstanz.

Abbautest angesetzt mit Belebtschlamm (2x gewaschen) der Kläranlage Edenkoben vom 15.2.1990 mit 4,1 g/lTS. Prüfsubstanz für Testansatz ad 3.7 l gelöst u. nach Entnahme von 50ml (für DOC Tag 0) unter Zusatz von eingestelltem Belebtschlamm ad 3.95 l, Inoculum-Konzentration im Ansatz 1 g/l TS. Ebenso wird im Kontrollsubstanzansatz verfahren.

Prüfsubstanz für PC - Ansatz ad 4.0 l gelöst u. hieraus DOC Tag 0 bestimmt.

Methode: EEC Directive 79-831 Annex V, Part C: Methods for the determination of ecotoxicity, Level 1 Biodegradation "Zahn-WellensTest", entspricht weitgehend OECD 302 B und DIN 38412 T 25

Anmerkung
Die DOC-Differenz zwischen CA´ und CA´´ ist auf die Filtration des 3,7 l - Ansatzes zurückzuführen.

INSTITUT KUHLMANN

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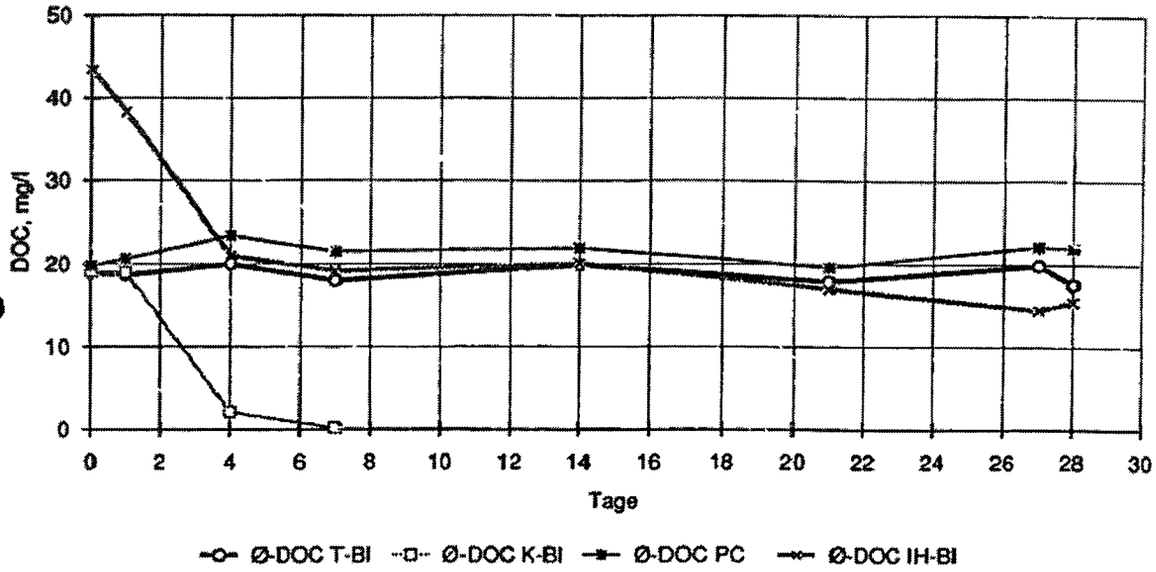
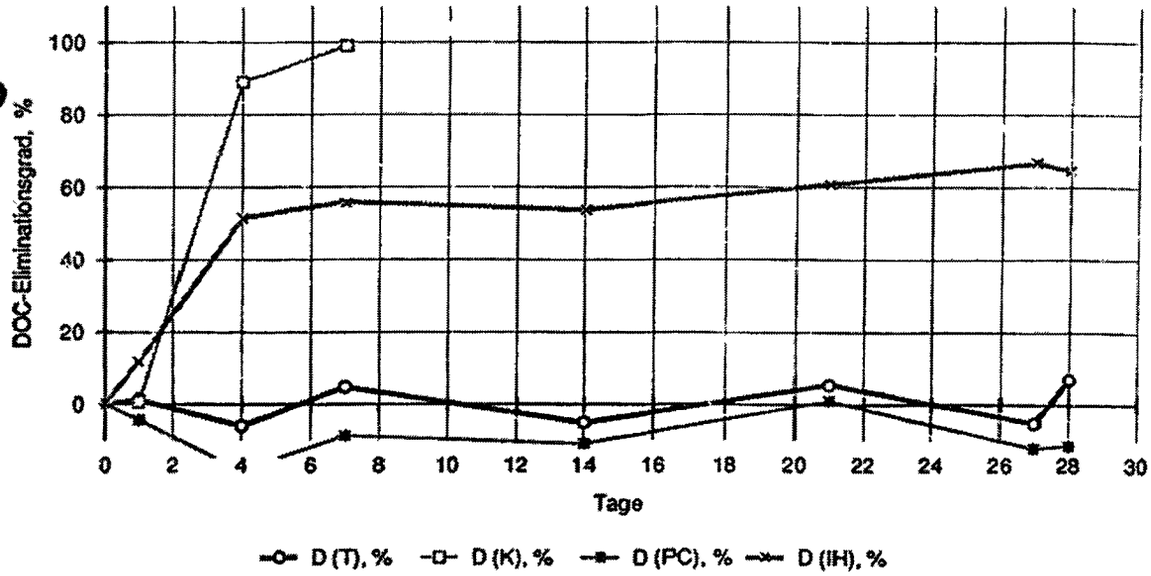
DOC zu ISO 7827





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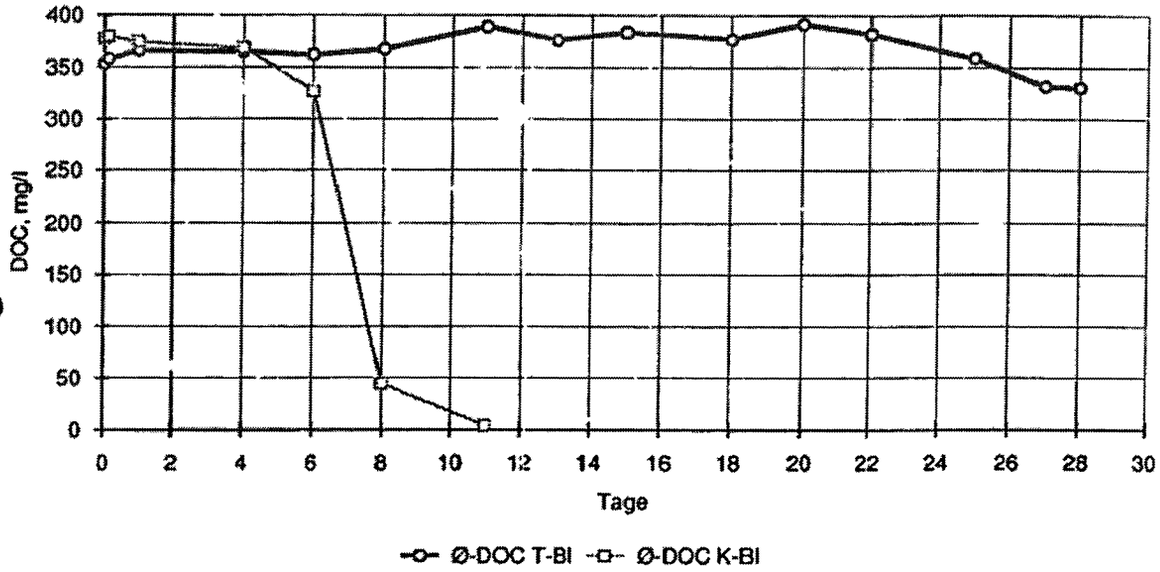
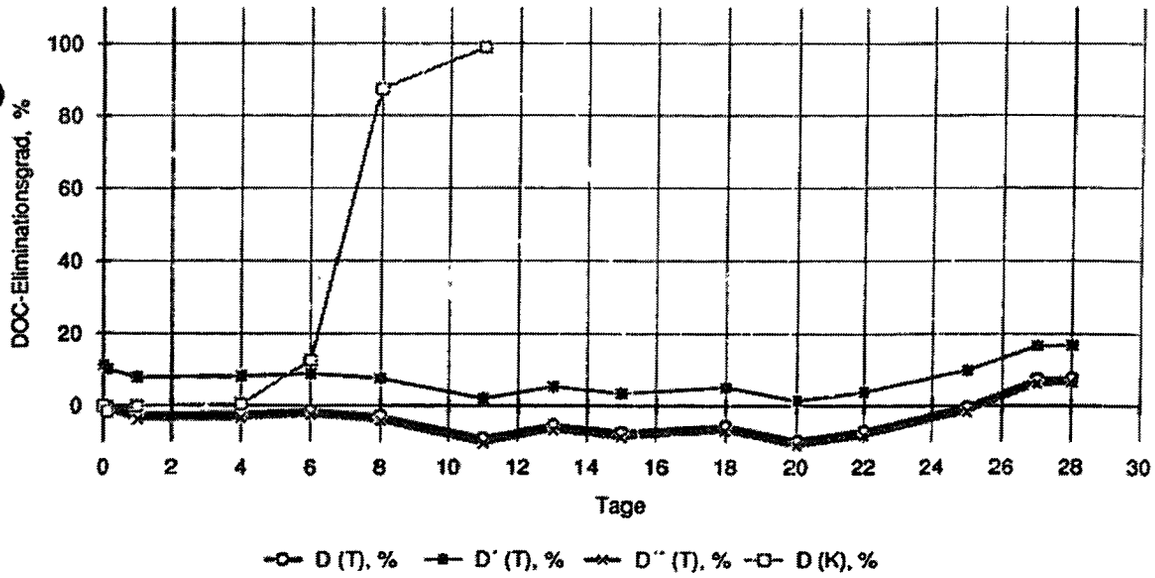
DOC zu Standversuch





7.3.

BASF
The Chemical Company

SUMMARY OF RESULTS

N,N,N',N'-Tetramethylethylendiamin

Determination of the ready biodegradability

1 TEST GUIDELINE

Modified OECD Screening Test Guideline 301 E - Ready Biodegradability, International Standard ISO 7827

Test result:

Biodegradation degree of the test substance:
Removal of DOC: about 10 % after an exposure period of 28 days

Biodegradation degree of the reference substance:
Removal of DOC: 99 % after an exposure period of 7days

Biodegradation degree in the inhibition control assay:
Removal of DOC: 66% after an exposure period of 7days

DOC = dissolved organic carbon

Source of inocolum:
Effluent from a wastewater treatment plant, treating municipal sewage.

The test was performed in the year 1990.

ORDER INFORMATION

The investigations were performed in the former Laboratory of Emission Control (department code: DUU/O – K 210) of BASF Aktiengesellschaft Ludwigshafen/Rhein, Germany.

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