2501-330652-04-02-589547

2500

..... 1

..... 24

..... 42

..... 51

صي ..... ʻ Ŏ

6 MSDS

7

8

	2500		
	2501-330652-04-02-589547		
			18888739867
	56		7
	120 37 31.717		30 5 13.065
	C3982		398
			√ □ □ □
/		/	2501-330652-04-02-589547
	4034.71		90
%	2.2		3
	√	m^2	4260

1.1-1

	[a] 500	[a]	

2013-2020 2021-2030 2030

1

“ ”

2020 34.0

30.0 4.0 2030 47.0

45.0 2.0

2020 75.0% 2030

95.7%

2

1

“ ”

	2 “ ” “ ” 66.2 “ ” 329 “ ” “ ” “ ” “ ” “ ” 2 1 “ ” 329 “ 0602- -0-4 ” 1.1-2

1.1-2

	329	0602--0-4			

2 “ ”

56

3 “ ”

4 “ ”

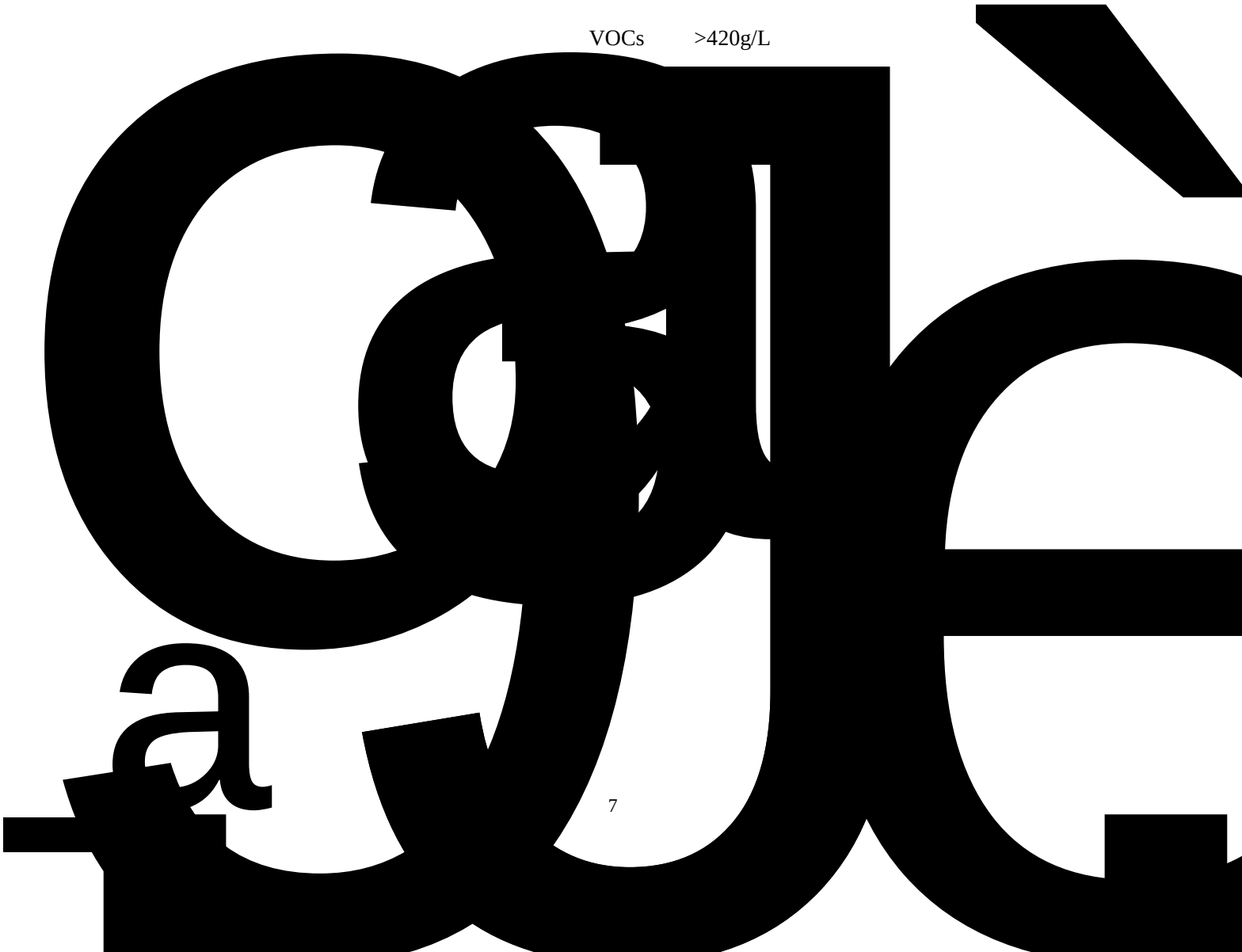
5 “ ” 1.1-3

1.1-3

0602-
-0-4”

DMF

VOCs >420g/L



3

56

[2024]36

ZH33060220001

1.1-4

1.1-4

		2024 2025	
		C3982 [2024]36 1	
		56 7	

	ZH33060220001	

4

56

7

5 **“ ”**

1.1-6 “ ”

1	VOCs VOCs ( ) VOCs VOCs	ZH33060220001 GB/T 38597-2020 GB 33372-2020 GB38508-2020 2.2.4-2 VOCs	
2	“ ” ( ) ( )		

VOCs 1.1-4 VOCs
1 2

VOCs

VOCs 2

3

VOCs

VOCs

2025 5000 VOCs 60%
(3) VOCs
70%
VOCs
60%

“ ”
“ ”

10 VOCs
VOCs
VOCs

HJ 944

VOCs

VOCs



30 2025

60 / 100 /

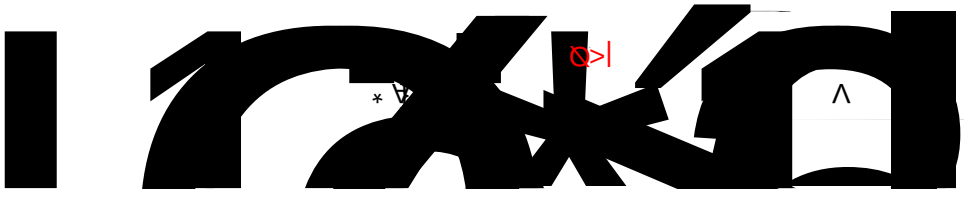
“ ”

VOCs

= Ñ

”“ ”

V



		“ ”		
6		2023 2025 6 “ ” 2022 12 35 / “ ” ( ) A		
7		B A B		
8		VOCs 2023 8 VOCs 2025 VOCs 2023 3 “ ” 2023 8	VOCs	

		2025		

8

(2020)

3.5

9 (2022)

1.1-9 (2022)

1		
2		

( )

56

3

ZH33060220001

I

56

4

56

5 ' È!å%93$$µ¯Ö œ ,´ è4ï ¼

( )
( )

( ) ( )
( )
( )
( )

6

( )
( )

( )

- Aî Ê Ä

18



		“ ”	

11 2023

2023

12 ([2024]11)

1.1-11 ( )

		2024 (SCR) 2025 6 2024 ,2027		
	VOCs	VOCs VOCs VOCs ,	GB/T 38597-2020 GB 33372-2020 GB38508-2020	

		1 420m² 1 1617m² 1 108m²	
		38.5m² 22m² 36m²	
		/UV “ ” DA001	
		30 m² 1 30m² 1	

2.2.1-2

			m²
1			765
2			1742
3	DIP)		1390
4	SMT)		1430

2.2.2

2.2.2-1

2.2.2-1

	(/)	(/)	(/)	
	200	2500	+2300	0.15m*0.15m
	200	2500	+2300	

SMT

200 /

2500 /

/UV

2.2.2-2

/

750 300

450

	2.2.4-1 SMT A

2.2.4.2

MSDS VOC

VOCs VOC 10%

MSDS 2.2.4-3

2.2.4-3

0 32
° F 18255.6 mg/kg

/ LD_{50}
4g/kg LD_{50}
2.5g/kg

1.20 ± 10%g/cm^3
0-10

25 2.0 pH
7.5

LD50 1790mg/kg
3200mg/kg
LC50
LD50 5000mg/kg
3600mg/kg
6410mg/kg
12800mg/kg

0.81 ± 0.01 20
12
% V/V 7.99%
% V/V 1.72%

U0

1580mg/kg

LD50 7460 uL/kg

A (LD50) - - 13,600 mg/kg

(LD50) - - - > 2,000 mg/kg

LD50 5620 mg/kg( ) 4940 mg/kg( ) LC50 5760mg/m^3 8 ( )

LD50 5800 mg/kg( ) 20000 mg/kg( )

(LD50) - - - 2,800 mg/kg

(LD50) - - - > 2,000 mg/kg

1.65 ± 0.05g/cm^3

>200 >200 LD50>1200mg/kg >400 1.75g/ml(40)

pH 7.0 ± 0.5 25 0.98 460 78

2.2.5

2.2.5-1

2.2.5-2 VOC

2.2.6

9

2.3

/UV

2.3-1

2.3-1

1) /

2) /

/ PCB

3) PCB

4) PCBA

50--160 160-210 210-250

180-50 PCBA / -

5) AOI PCBA

PCBA

6) AI DIP PCB

	/UV	VOCs
		VOCs
		COD_{Cr}
	/UV	

2.5.1

2005 7

2.5.1-1

2.5.1-1

1	2010 5	200	200	[2010]92	2010 9 2010 171	/

91330600776608451E001W

COD_{Cr} 500mg/L

DB33/887-2013

35mg/L COD_{Cr} 0.733 / NH_3-N 0.064 /

COD_{Cr} COD_{Cr} 80mg/L

10mg/L COD_{Cr} 0.147t/a 0.018t/a

200

VOCs 0.2t/a

VOCs 0.588t/a

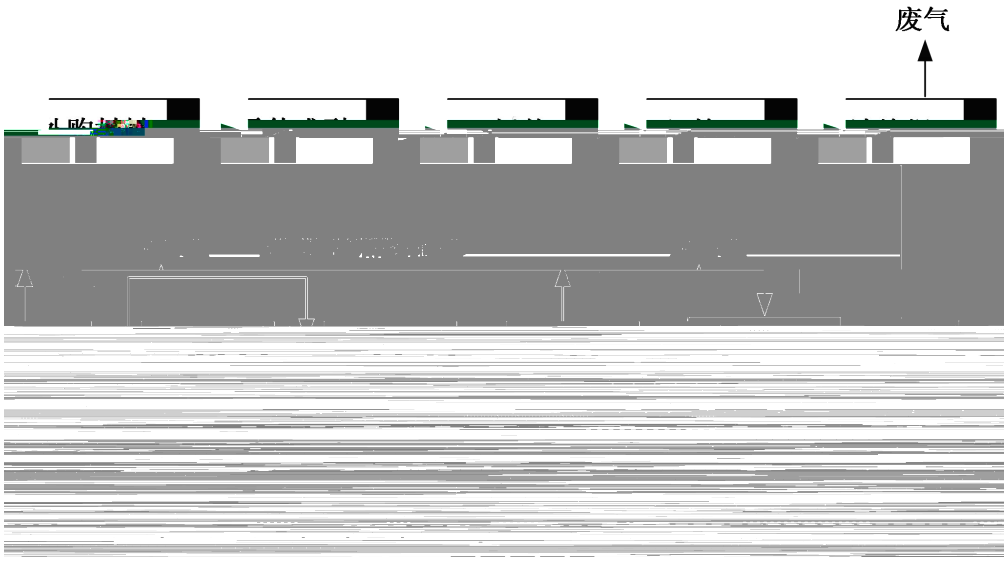
2.5.1-2

t/a

2.5.3-1

			(/)			
1		/	4	4	4	
2		/	4	4	4	
3		/	7	7	7	
4		/	2	2	2	
5		/	2	2	2	
6		/	2	2	2	
7		/	2	2	2	
8		/	2	2	2	

2.5.4



2.5-1

1

2 PCB PCB

3 PCB

4

5 PCB PCB

6

7

8

2.5.5

2.5.5.1

1

350

50L/d 4375t/d

85% 3718.75t/a

2

(2024(HJ)080680 2024 8 22) 2.5.5-2

2.5.5-2 mg/L(pH)

2024 08 22

	01RD10101		01RD10102		01RD10103	
pH	7.1	33.9	7.2	34.5	7.1	34.3	6~9
	152		143		138		500

(GB8978-1996) DB33/887-2013

3

2.5.5-3

2.5.5-3

2.5.5-3

	t/a	3718.75	3718.75
CODcr	mg/L	144	80
	t/a	0.536	0.298
NH_3-N	mg/L	31.6	10
	t/a	0.118	0.037

2.5.5.2

1

(

2024(HJ)120696 2024 12 23)

		kg/h	8.27×10^{-4}	0.52	

(DB1 7-1996) 2 8.27 × 10^{-4}kg/h 2000h

0.0017t/a 0.0028t/a

2.5.5-8

	2024
VOCs(t/a)	0.569
(t/a)	0.0017
(t/a)	3718.75
CODcr(t/a)	0.959
(t/a)	0.120

“ 5 3 ”

(1)

3.1-2

3.1.3

.

/m

3.3-1 DA001 (mg/m^3)

1			1000		
2	(NMHC)		80		
3	TVOC		60		DB33/2146-2018

3.3-2 DA001 (mg/m^3)

	GB16297- 1996		
		mg/m^3	kg/h
	15	120	3.5
	15	8.5	0.31
	15	5.0	0.15

2

VOCs

DB33/2146-2018

GB16297- 1996 2

3.3-3

3.3-3 mg/m^3

1	VOCs		4.0	
2			20	DB33/2146-2018
3		/	1.0	
4		/	0.24	GB16297- 1996
5		/	0.04	

VOCs

GB37822-2019 3.3-4

3.3-4

	mg/m^3		
NMHC	6	1h	
	20		

3.3.2

GB8978-1996 4

DB33

887-2013

[2017]57

GB/T31962-2015

91330621736016275G001V

3.3-5 pH mg/L

pH	6 9	6 9
(CODcr)≤	500	80
(BOD_5)≤	300	20
≤	400	[redacted]

(2025) (GB5085.7-2019)

(2024 4)

GB18599-2020 ( )

(GB18597-2023)

3.4

COD

< >

([2014]197)

VOCs

3.4.1

3.4-1

3.4-1

			“ ”				
						/	
	t/a	1832.8	1832.8	10200	10200	10200	8367.2
COD(t/a)		0.916	0.916	5.100	5.100	5.100	4.184
		0.147	0.147	0.816	0.816	0.816	0.669
NH_3-N(t/a)		0.064	0.064	0.357	0.357	0.357	0.293
		0.018	0.018	0.102	0.102	0.102	0.084

(t/a)		0.082	0.082	0.459	0.459	0.459	0.377
		0.027	0.027	0.153	0.153	0.153	0.126
VOCs		0.588	0.588	0.951	0.951	0.951	0.363
(t/a)		0.0028	0.0028	0.011	0.011	0.011	0.008

* COD

0.4t/a

97.1% VOCs 0.388t/a



1 …bgã Ò)

"

7

1

2

3

4

4.2

4.2.1

#ɋ': # ɮ̃ᴹŋ ᵘ >Xí

@ QP,@ 2D

4.2-1

/

h (h)

UV 2t VOCs MSDS

95%

98%

80% “

+ ” 40000m^3/h

4.2-4

		mg/m^3	kg/h	t/a	t/a	mg/m^3	kg/h	t/a
		0.075	0.003	0.011	0.000	0.077	0.003	0.011
		-	8.75E-05	3.15E-04	0.000	-	8.75E-05	3.15E-04
		-	-	0.011	0.000	-	-	0.011

3

“ +

” DA001

40000

≤ 20 GB14554-93

4.2-5

4.2-5

		t/a	t/a	t/a
	VOCs	3.351	2.400	0.951
		0.011	0	0.011
	VOCs	3.351	2.400	0.951
		0.011	0	0.011

4.2.2

1h

0%

4.2-8

mg/m^3 kg/h /h /

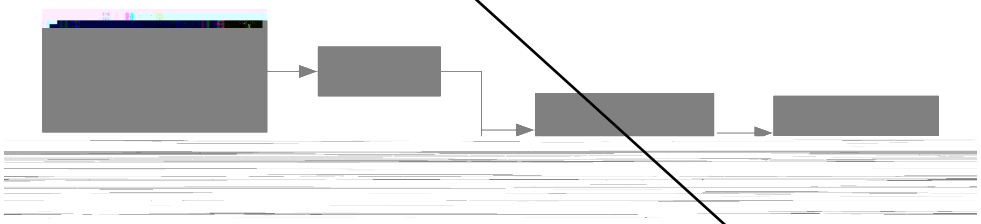
DA001

4.2-10

				(m³/h)		(m³/h)
DA001		8		1000	98%	8000
	/	20		60	98%	1200
	UV	9		400	98%	3600
		26		300	98%	7800
		15		1200	98%	18000
			(m²)	v m/s	β	(m³/h)	(m³/h)
		3	0.1	0.5	1.05	189	567.0
							39167
							40000

(2)

4.2-1



4.2-1

B.1  HJ1031—2019 “

VOCs

“ + ”

VOCs

DB33/2146-2018 1

GB16297-1996

-

BET 350m^2/g 0.60m/s

80% VOCs 200mg/Nm^3

ˆ 40000m^3/h 3t

4.2-1

4.2.6

15m

10

D=2AB/(A+B) D A B

6 3

80 50

1.5m^2 1.1m 10cm

4.3

4.3.1

4.3-1

4.3-1

/														/(h/a)
			(m^3/a)	(mg/L)	(t/a)	(m^3/d)			(%)		(m^3/a)	(mg/L)	(t/a)	
	COD_{Cr}		10200	350	3.570	/	+		/		500	5.100	500	3600
				35	0.357				/		35	0.357	35	
				50	0.510				10%		45	0.459	45	

4.3-2

4.3-2

DW001		120.625989	30.086812	0:00-24:00				GB8978-1996 DB33 887-2013 GB/T31962-2015

400 200 50L/ .d

150L/ .d 40t/d

85% 34t/d(10200t/a)

CODcr 350mg/L NH_3-N 35mg/L 50mg/L pH6-8

1 1 500m^3/h

2.525m^3/h 3600h/a

9090m^3/a

CODcr

4.3-3

4.3-3

			COD_{Cr}		NH_3-N		TN	
	t/d	t/a	mg/L	t/a	mg/L	t/a	mg/L	t/a
	34.00	10200	350	3.570	35	0.357	50	0.510
	34.00	10200	500	5.100	35	0.357	45	0.459
	34.00	10200	80	0.816	10	0.102	15	0.153

1

4.3.2

4.3.2

90 /

30 t/d “ A/O ”

4.3-4

pH đ

4.4-1 ( )

			/dB(A)	/m			L_{p1}		TL		
				X	Y	Z	/m	/dB(A)	/dB(A)	/dB(A)	(m)
1		2F	70	85.7	1.4	8.9	10	47.3	21	26.3	1
2		3F	70	84.7	6.7	14.1	10	46.2	21	25.2	1
3		2F	75	81.3	3.1	8.9	10	52.3	21	31.3	1
4		3F	75	81.5	6.7	14.1	10	51.2	21	30.2	1
5		2F	75	77.9	3.4	8.9	10	52.3	21	31.3	1
6		3F	75	77.5	8.0	14.1	10	51.2	21	30.2	1
7	AOI	2F	75	28.9	11.5	8.9	15	50.5	21	29.5	1
8	AOI	3F	75	29.1	15.0	14.1	15	51.1	21	30.1	1
9		AOI 2F	75	72.9	3.8	8.9	10	53.4	21	32.4	1
10		AOI 3F	75	79.5	3.6	14.1	10	52.6	21	31.6	1
11		AOI 2F	75	72.6	9.0	8.9	10	53.4	21	32.4	1
12		AOI 3F	75	79.1	8.6	14.1	10	52.6	21	31.6	1
13		2F	75	99.8	2.0	8.9	5	57.2	21		

19		75		21.0	29.9	20.0	7	58.6		21	37.6	1
20		75		99.9	-0.9	14.5	6	55.6		21	34.6	1
21	2F	75		20.5	12.3	8.9	15	50.5		21		

4.4.2

(HJ2.4-2021)

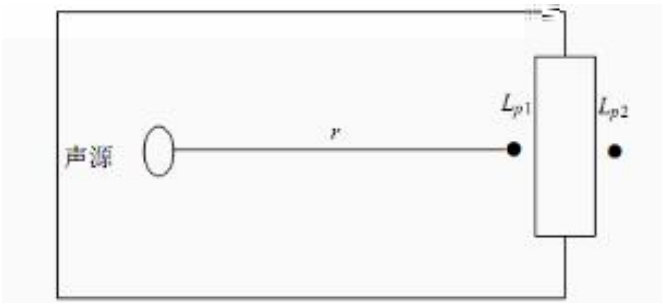
HJ2.4-2021 A( )

B( ) “B.1 ”

( )

A L_{p1} L_{p2}

A



$L_{P2}=L_{P1}-(TL+6)$

L_{P1} L_W $10\lg(\frac{Q}{4\ r^2}\ \frac{4}{R})$

$R=S\alpha/(1-\alpha)$

L_{P2} ( ) A dB

L_{P1} ( ) A dB

TL ( ) A dB

L_W (A) dB

Q Q=1

Q=2 Q=4

Q=8

r m

R

S m^2

α

$Lp(r)=Lp(r_0)-20\lg(r/r_0)$

Lp(r) dB

$Lp(r_0)$ r_0 dB

r

r_0

i A L_{Ai} T

t_i j A L_{Aj} T

t_j (L_{eqg})

$$L_{eqg} \quad 10\lg[\frac{1}{T}\sum_{i\ 1}^{N} t_i 10^{0.1L_{Ai}} \sum_{j\ 1}^{M} t_j 10^{0.1L_{Aj}}]$$

4.4-3

4.5-1

						(t/a)			(t/a)
		900-008-S17	PCB		-	160			160
		900-099-S59			-	0.25			0.25
		900-003-S17			-	28.76			28.76
		HW49 900-045-49			T	4			4
		HW49 900-041-49			T/In	0.748			0.748
		HW49 900-039-49			T	14.4			14.4
		HW06 900-404-06			T/In	0.814			0.814
		HW49 900-041-49			T/In	0.2			0.2
	/UV	HW12 900-252-12	UV		T/In	0.774			0.774
		HW13 900-014-13			T	0.52			0.52
			-		-	60			60

1

160t/a

2

1%

25t/a 0.25t/a

3

28.76t/a

4

0.1% 25000 / 4t/a

5

0.748t/a

6

1 VOCs 0~200mg/m3

40000m^3/h 3600h/a -

A

3t 4 /

VOCs 2.337t/a 14.4t/a

7

0.3t/a

VOC 10% 0.814t/a

8

1 0.2t/a

9

UV 70% 0.774t/a

10

80%

0.52t/a

9

400 0.5 kg/d

60t/a

1 30m^2 1 30m^2

1m 1t/m^3 50% 15t

21.356t/a 90

(2017

43)

4.5-2

4.5-2

				m^2			
1							3
2							3
3							3
4				30		15 t	3
5							3
6							3
7							3

4.5.2

( )

(GB18599-2020)

GB18597-2023

4.5-3

3

1m

10^{-7}cm/s 2mm

10^{-10}cm/s

5

6

:

(1)

(2) 9 6 ğ ĭ Ọ

(3)

(4)

(5)

(6)

(7)

(HJ1276-2022) A

:

1

2

3

(3)

(4)

(5)

(6)

(7)

4.5.3

4.6

4.6.1

4.6-1

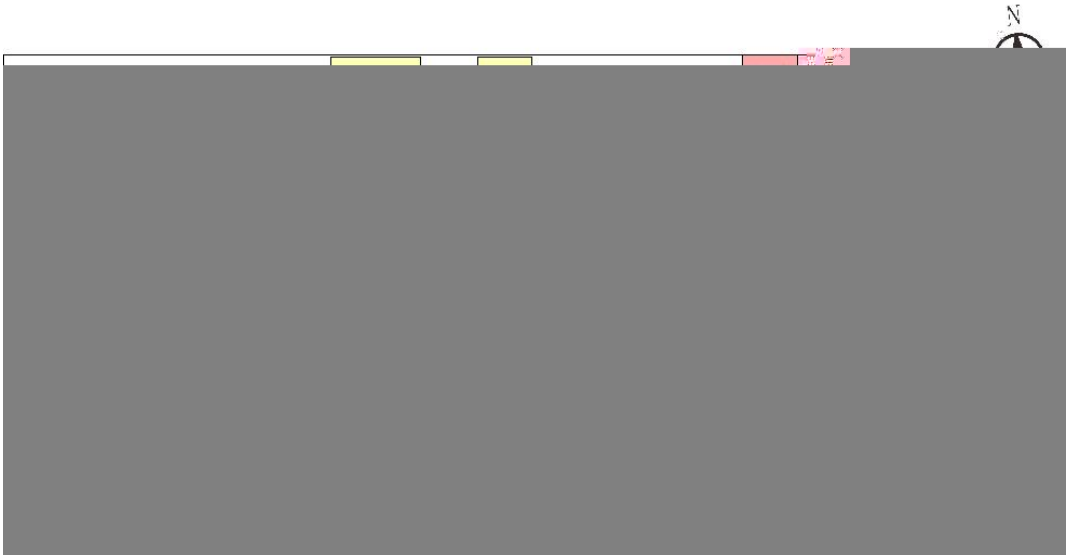
4.6-1

	/					
			COD_{Cr}	/		

4.6.2

(GB50108-2008)

“ ”



4.6-2 2F



4.6-3 3F

4.7.3

4.7.3.1

I II III IV/VI^{+}

4.7-2

(E)	(P)			
	(P1)	(P2)	(P3)	(P4)
(E1)	IV^{+}	IV	III	III
(E2)	IV	III	III	II
(E3)	III	III	II	I
IV^{+}				

4.7.3.2 **(P)**

(1) (Q)

Q

$$Q \quad \frac{q1}{Q1} \quad \frac{q2}{Q2} \quad \cdots \quad \frac{qn}{Qn}$$

q1 q2…qn—— t

Q1 Q2…Qn—— t

Q 1 I

Q≥1 Q (1)1≤Q 10 (2)10≤Q 100 (3)Q≥100

Q 4.7-3

4.7-3

			(t)	(t)	Q	
1			15	50	0.160	
2			0.04	10	0.004	
3						
4			0.004	0.25	0.016	

5			0.0004	0.25	0.0016	
6		N,N-	0.03	5	0.006	
Q ∑					0.187	

Q 0.187<1 I

4.7.4

. D 7-4

. 7-4 D ⁻ ⊤

⊥				
≥ 30	≥ ⊥ϕ2 ⊥·3~⊥3·⊥	⊤		ضج ª
ª ⊥	فخ‘ ⊥	⊥	⊥2000ш⊻ϰ g g فم	
⊥	⊥ فم نهـ A		⊥ 2 ⊤ ⊥D0	

4.7.5

4.7.5.1

. 7.5 ɜ

. 7.5 A 4 ą̈ o ɾ

·2 2

(, א o ` %V/V)(, א o ṗ î ķ ɔo ⊥ą̈

	VOCs	1 /	(HJ1031-2019)

4.9-2

6:00~2 ê

Leq(A)

(GB12348-2008)3

	( )/			
	DA001	VOCs	/ “ + ”	DB33/2146-2018 GB16297- 1996
	DW001	CODcr	+	(GB8978-1996) (DB33/ 887-2013) ([2017]57)
			1) 2) 3) 4) 5)	GB12348-2008
	/	/	/	/
		1 30m^2		
		1 30m^2 “ ”		

	“ ”	
	/	
	1 (2019)(11) 5-1 (2019) ( )	

39				
89	391 397 398 399		10	*

(736)

2 “ ”

“

”

“ ”

3

“

”

( )
( )
( ) 5 20

, א n £ طِ

4

2500

56