



:VAIARA 136
(TO + EA + IPA)

(Emerhency Telephone Number)
032-574-1989 (24 hours)

1.

가.

: VAIARA 136

UN : 1993

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: 032-574-1989

: 가 37 17 (가)

2.

가.

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H225
H304
H315
H319
H336
H361
H373

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P201
P202
P210
P233
P240
P241
P242 가
P243
P260 가 ()
P261 가
P264
P271 가
P280

-

P301 + P310 ()
P302 + P352
P303 + P361 + P353 () /
P304 + P340 가
P305 + P351 + P338 . 가
P308 + P313
P312 ()
P314
P321
P331
P332 + P313
P337 + P313
P362 + P364
P370 + P378 ,

-

P403 + P233 가
P403 + P235 가
P405 가

P501 ()

	NFPA		
/ TOLUENE	2	3	0
/ ETHYL ACETATE	1	3	0
/ ISOPROPYL ALCOHOL	2	3	0

] 5 ()_	[2017.7.20.] [4	2017-12 , 2017.7.20.,
_	4	,
] < 1> 3.3	[2016.4.6.] [2	2016-19 , 2016.4.6,
,	/	,

– [2017.7.20.] [2017-12 , 2017.7.20.,] 5 ()

3.

		CAS No.	(W%)
		108-88-3	50~60
		141-78-6	5~10
		67-63-0	20~30

4.

가.

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5. .

가. ()

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	-4 ~ 11
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(,)	
/	MIN : 1.1%, MAX : 12%
	526 mg/l (Toluene), 80 g/L (Ethyl acetate), (IPA)
()	
	28.4 mmHg (25) (Toluene), 93.2 mmHg (25) (Ethyl acetate), 33 mmHg (20) (Isopropyl alcohol)
	0.85
N- /	2.7
	427
	3.14(Toluene), 3.04(Ethyl acetate), 2.07 ~ 2.10(Isopropyl alcohol)
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10.

가. 가

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11.

가. 가

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PRODUCT :

- : LD50 > 5580 / LD50 > 5620 /LD50 > 5280(mg/kg)

PRODUCT :

- : LD50 > 5000 / LD50 > 18000 / LD50>12870(mg/kg)

(가) PRODUCT :

- : / LD 50 > 100 / LC 50 > 72.6 (mg/L)

() PRODUCT :

- : : :

(/) PRODUCT :

- : : :

PRODUCT : 2

- : 2 / Rabbit : / :

PRODUCT : 2

- : 2/ : 2/ : 2/

PRODUCT :

- : : :

PRODUCT :

- : / : / / /

PRODUCT :

- : : :

. :

· OSHA :

· NTP :

· IARC : 3

· EU CLP :

· ACGIH : A4

PRODUCT :

- / Mouse lymphoma cells

PRODUCT : 2

- 2 /

(1) PRODUCT : 3()

-	:	3() / 6.08 mg/L			
		3		Rat	,
		() PRODUCT :	2		
-	:	2 / 600 ppm		Rat	
		PRODUCT :	1		
-	:	1 /		Human	

12.

가.	PRODUCT -	:	,	:	
-	:	LC50 5.5 mg/L	LC50=230	LC50=9640	
-	:	LC50 3.78 mg/L	EC50=717	EC50 > 10000	
-	:	NOEC 10 mg/L	EC50=1800~3200	:	
.					
-	:		: BOD 5 /COD 0.81	:	
-	:	log Kow 2.73	: 0.73	:0.05	
.					
-	:	BCF 90	BCF : 30	BCF : 1	
-	:	BOD/ThOD 69 %	100% 28 DAY	BODS = 49%	
.					
		(Koc)			
-	:	Koc >= 34	:	Koc >=25	
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13.

가.					
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14.

가. : 1993

. : Flammable liquid, n.o.s (contains Toluene , Ethyl acetate, Iso propyl alcohol)

. : 3

. : PG II

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. 가 가 :

. : F-E

. : S-D

15.

가.

- , (, 1 wt% : , , : , 30),
(1 wt% , :12 , :6)

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- : , (85%) (25%)

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가

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- - EU ()
 - F; R11 ,Xi; R36, R38 Xn; R48/20-65 Repr.Cat.3; R63 R66 R67
 - EU ()
 - R11, R36, R38, R48/20-65, R63, R65, R66, R67
 - EU ()
 - S2 S7 S16 S24 S25 S26 S33 S36 S37 S46 S62
 - 2006/507/EC
 -
 - 689/2008/EC
 -
 - Designation, Reportable Quantities, and Notification
 - : 1000 lb final RQ; 454 kg final RQ : :
 - Emergency Planning and Notification
 -
 - Toxic Chemical Release Reporting - Community Right-to-Know
 - : 1.0 % de minimis concentration : :
 - Process Safety Management of Highly Hazardous Chemicals
 -
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16.

가.

- ACGIH
 - ATSDR
 - American Chemical Society, Washington DC.
 - American Industrial Hygiene Association Journal 30, 470-476
 - Chemosphere 14 (10). 1589-1616.
 - EHC
 - EHCA
 - Ecotoxicol. Environ. Saf. 39, 136-146.
 - HSDB
 - IARC
 - IUCLID
 - Marine Biology 31, 305-310
 - Publication
 - RTECS
 - Study report
-

-
- Toxicology 4, 5-15
 - Transactions A. Fish. Soc. 110, 430-436.
 - Water Research 13, 627-630

. : 2009.07.07

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2010 5 20

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2018 3 7

((2016.4.16)
2018 9 12 2016 -19)

가

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MSDS 가
가
MSDS

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MSDS : RGB () 02-597-0645