



:VAIARA 442
(MEK + EA + TO)

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

1.

가.

: VAIARA 442

UN : 1993

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: 032-574-1989

: 가 37 17 (가)

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H225
H304
H315
H319
H336
H361
H371
H372
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
/Methyl Ethyl Ketone	1	3	0

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

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

3.

		CAS No.	(W%)
		108-88-3	20~30
		141-78-6	30~40
		78-93-3	30~40

4.

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5.

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가.

		ACGHI	
Toluene	TWA 50ppm, STEL 150ppm,	TWA 20ppm	2.5g/g crea
Ethyl acetate	TWA 400ppm,	TWA 400ppm	
Methyl ethyl ketone	TWA 200ppm STEL 300ppm	TWA 200ppm STEL 300ppm	2mg/L() MEK,

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9.

pH	
/	-95 ~ -84
	77 ~ 111

	-9
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(,)	
/	MIN : 1.4%, MAX : 12%
	526 mg/l (Toluene), 80 g/L (Ethyl acetate), 223 g/L(MEK)
()	
	28.4 mmHg (25) (Toluene), 93.2 mmHg (25) (Ethyl acetate),90.6 mmHg(25)(Methyl ethyl ketone)
	0.8669(Toluene),09003(Ethyl acetate),0.8054(Methyl ethyl ketone)
N- /	2.7
	427
	3.14(Toluene), 3.04(Ethyl acetate), 2.5(Methyl ethyl ketone)
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10.

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11.

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PRODUCT :

- : LD50 > 5580 / LD50 > 5620 /LD50 > 2737(mg/kg)

PRODUCT :

- : LD50 > 5000 / LD50 > 18000 / LD50>6480(mg/kg)

(가) PRODUCT :

- : / LD 50 > 100

() PRODUCT :

- : : / LC50 > 32mg/l 4 hr mouse

(/) PRODUCT :

- : : :

PRODUCT : 2

- : 2 / Rabbit : / :

PRODUCT : 2

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PRODUCT :

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PRODUCT :

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PRODUCT :

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· OSHA :

· NTP :

· IARC : 3

· EU CLP :

· ACGIH : A4

PRODUCT :

- / Mouse lymphoma cells

PRODUCT : 2

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(1) PRODUCT : 3()

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14.

가. : 1993
. : Flammable liquid, n.o.s (contains Toluene , Ethyl acetate, Methyl ethyl ketone)
. : 3
. : PG II
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. 가 가 :
. : F-E
. : S-D

15.

가.
- , (, 1 wt% : , , :6 , : , 30),
(1 wt% , , :12 , :6)
.
- : , (85%) (25%) (25%)
.
- : 4 1 (200L) 4 1 (200L) 4 1 (200L)
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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 S9 S16 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 -19) (2016.4.16)
2018 9 12

가
() MSDS

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MSDS 가
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MSDS : RGB () 02-597-0645