

: 2021 - 09 - 01

MSDS : AA04815 - 0000000018

## (MSDS)

### 1.

가. :

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: 310 ( )

: 02 - 2008 - 2757

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### 2.

가. .

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- ( ) 4

- ( ) 4

- ( : ) 4

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- (1 ) 3( )

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H225

H302

H312

H315

H319

H332

(TB\_GHS\_HCODE\_PHRASE\_LANG) DB

H336

H351

(  
가 .)

P201

P202

P210

P233

P240

P241

( )

P242

가

P243

P261

P264

( )

P270

P271

가

P280

( )

P301+P312

:

P302+P352

:

( )

P303+P361+P353

(

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:

/

P304+P340

:

가

P305+P351+P338

:

가

P308+P313

:

P312

/

P321 4

P330

P332+P313

P337+P313

P362+P364

P370+P378

CO2,

( )

P403+P233

가

P403+P235

가

P405

P501

○ NFPA : (Health) = 3, (Flammability) = 0, (Reactivity) = 0  
( 0 = , 1 = , 2 = , 3 = , 4 = )

3.

|          |  | CAS No.      |     |  |  |
|----------|--|--------------|-----|--|--|
| Pyridine |  | 110 - 86 - 1 | 100 |  |  |

4.

가.

20

20

가

가

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- 가 .
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## 5. .

가. ( )

- - CO2
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    - , 가 / .
    - 가 가 .
  - - 가 가 .
    - 가 ; , , .
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    - ; , .
    - / .
    - , , .

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- (flash back) .
- (flash back) .
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7.

가.

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- 가 , , , , , , , .
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- 가 가 MSDS/ .
- 가 .
- / 가 .
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- 가 .
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8.

가.

|          |              | ACGIH           |  |
|----------|--------------|-----------------|--|
| Pyridine | TWA : 2.0ppm | TWA : 1 ppm TWA |  |

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- 가 가 .
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- 가 . (APF).
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- 가 ( ) .
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9.

|       |                                |
|-------|--------------------------------|
|       |                                |
|       |                                |
|       |                                |
|       |                                |
|       | (0.01 - 15 mg/m <sup>3</sup> ) |
| pH    | 8.81 (20 ° C)                  |
| /     | - 41.6                         |
|       | 115.2                          |
|       | 20                             |
|       |                                |
| ( , ) |                                |
| /     | 12.4 / 1.8 %                   |
|       | 2 kPa(20 )                     |
|       | 100 g/100Mℓ(25 )               |
|       | 2.73 ( =1)                     |

|       |                         |
|-------|-------------------------|
|       | 0.982 ( =1)             |
| n - / | 0.65                    |
|       | 482                     |
|       |                         |
|       | 0.879mm <sup>2</sup> /s |
|       | 79.1                    |

10.

가. 가

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- (flash back) .
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- 가 가 .

11.

가. 가

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- ( )  
LD50 891 mg/kg : Rat
- ( )  
LD50 1121 mg/kg : Rabbit (OECD TG 402)
- ( :가 )
- ( : )  
ECHA 2 (ATE 11mg/L)
- ( : / )

○

, , ; / 24hr :  
, , ; / 48hr : , , ;  
. other guideline: U.S. Department of Transportation 49 CFR 173.240

○

official French protocol based on a Draize scale :  
overall irritation score : 24hr 43Max.110, 7  
other guideline: French Journal Officiel 1984

○

○

Mouse local lymphnode assay LLNA : > 3, LLNA EC50 3 .  
가 .  
, OECD Guideline 429 :

○

2  
IARC  
3  
OSHA

ACGIH  
A3  
NTP

EU CLP

○ Chinese hamster lung fibroblasts V79 OECD  
Guideline 476, GLP : , 가 가  
90.3% 4.2% . plating efficiency 85.7% 108.0%  
. S - 9 ,  
75.0 109.0 93/plate . S. typhimurium TA  
1535, TA 1537, TA 98 and TA 100 OECD Guideline 471, GLP :  
OECD

Guideline 475 :

○ NOAEL(reproductive toxicity) = 25 mg/kg bw/day(P, Minor effects on female preimplantation indices and litter size.), NOAEL(reproductive toxicity) = 25 mg/kg bw/day(F1, decreased mean numbers of live pups per litter on days 1 and 4 of lactation for the 50 mg/kg/day dose group. )  
가 , 25mg/kg bw/day  
.  
, (OECD Guideline 421, GLP)

○ . (1 )  
, , , 가

○ . ( )  
: NOAEL = 100 ppm 8 mg/kg/day, LOAEL = 200 ppm 17 mg/kg/day,  
, 400ppm 가, 200  
and 400 ppm , , EPA OTS 798.3260 Chronic Toxicity,  
GLP : ,

○ : 0.879mm<sup>2</sup>/s, 40

가.

- LC50 99 mg/ℓ 96 hr Pimephales promelas(Method described by Broderius & Kahl 1985; non - guideline study)
- EC50 320 mg/ℓ 48 hr Daphnia magna(OECD Guideline 202, GLP)
- EC50 320 mg/ℓ 72 hr Selenastrum capricornutum( : 108 - 99 - 6, 3 - methylpyridine, OECD Guideline 201, GLP)
- 0.65 log Kow ( )
- 62 % day ( )
- 71.72 Koc (log Koc=1.856)
- :Chlorella vulgaris: IC50, 14 d, , = 0.06 other: % ,v/v, IC50, 14 d, , = 0.083 other: % ,v/v, IC50, 14 d, biomass, = 0.102 other: % ,v/v

13.

가.

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- ( )

14.

- 가. (UN No.) : 1282
- : PYRIDINE
- : 3
- : II
- :
- 가 가 :

: F - E

: S - D

- (ADR)

· Tunnel restriction code : D/E

- (IMDG)

· :

- Air transport(IATA)

· : 1282

· : PYRIDINE

· : 3

· : II

15.

가.

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- 4 1 ( ) (400L)

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● 1907/2006/EC

- EU - REACH (1907/2006) - List of Pre - registered Substances, EU - REACH (1907/2006) - List of Registered Substances, EU - REACH (1907/2006) - List of Registered Intermediates, EU - REACH (1907/2006) - Registered Substances Considered not to be PBT/vPvB

● United Nations Environment Program Montreal Protocol on Substances that Deplete the Ozone Layer

-

● United Nations Environment Program Persistent Organic Pollutants (POPs) Intergovernmental Negotiating Committee (INC)

-

● California Safe Drinking Water and Toxic Enforcement Act

- U.S. - California - Proposition 65 - Carcinogens List, U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL) Priority List
- U.S. Department of Transportation, 49 CFR 172.101 Hazardous Materials Table, Appendix A Table 1
- Hazardous Substances Other Than Radionuclides
  - U.S. - DOT (Department of Transportation) - Hazardous Substances and Reportable Quantities (Appendix A - Table 1)
- U.S. Designation, Reportable Quantities, and Notification
  - U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
- U.S. Emergency Planning and Notification
  -
- U.S. Federal Insecticide, Fungicide and Rodenticide Act
  -
- U.S. Integrated Risk Information System
  - U.S. - EPA - IRIS Carcinogenicity Assessment
- U.S. Toxic Chemical Release Reporting - Community Right - to - Know
  - U.S. - CERCLA/SARA - Section 313 - Emission Reporting
- U.S. Toxic Substances Control Act
  - Inventory - United States - Section 8(b) Inventory (TSCA), U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances

16.

가.

- ChemIDPlus
- ECHA
- HSDB
- ICSC
- NITE

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. : 2020 - 12 - 04

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○ : 2021 - 09 - 01

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- MSDS 가 , .
- MSDS , 3
- MSDS 가 , .