

1. Identification

- A. Product name : BLENDING THINNER DR-600
  - Usage category : Oil paint
- B. Recommended Use and Restriction on Use
  - General use : Automotive Refinish
  - Restriction on use : Restricted to use other than recommended use
- C. Manufacturer / Supplier / distributor information
  - Company name : NOROO Paint & Coatings Co., Ltd.
  - Address : 351, Bakdal-ro, Manan-gu, Anyang-si, Gyeonggi-do, Korea
  - Emergency telephone number : +82-31-467-6114

2. Hazard identification

- A. GHS Classification
  - Flammable liquids Category 3
  - Carcinogenicity Category 1B
  - Germ cell mutagenicity Category 1B
  - Specific target organ toxicity(Single exposure) Category 3 (respiratory irritation)

B. GHS label elements

- Hazard symbols



- Signal words : DANGER
- Hazard statements :
  - H226 Flammable liquid and vapour
  - H350 May cause cancer
  - H340 May cause genetic defects
  - H335+H336 May cause respiratory irritation, May cause drowsiness and dizziness.
- Precautionary statements
  - Prevention
    - P210 Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. no smoking
    - P223 Do not contact with water
    - P240 Ground container and receiving equipment
    - P241 Use explosion-proof equipment (electricity, ventilation, lighting, etc.)
    - P242 Use only non-sparking tools. Flammable liquids (chapter 2.6) 1, 2, 3
    - P243 Take precautionary measures against static discharge.
    - P280 Wear protective gloves/protective clothing/eye protection/face protection.
    - P201 Obtain special instructions before use.
    - P202 Do not handle until all safety precautions have been read and understood.
    - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
    - P271 Use only outdoors or in a well-ventilated area.
  - Response
    - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
    - P370+P378 In case of fire: Use Suitable extinguishing media for extinction(Refer Section MSDS 5).
    - P308+P313 If exposed or concerned: Get medical advice / attention.
    - P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
    - P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - Storage
    - P403+P235 Store in a well-ventilated place. Keep cool.
    - P405 Store by locking.
    - P403+P233 Store in a well-ventilated place. Keep container tightly closed
  - Disposal
    - P501 Dispose of the contents and containers in accordance with waste-related laws.

C. Other hazards which do not result in classification : (NFPA Classification)

Chemical Name	NFPA grade	Health	Flammability	Reactivity	GHS Classification
Propylene glycol methyl ether acetate		1	2	0	H226, H335+H336
Dimethyl carbonate		1	3	1	H226
3-Ethoxypropanoic acid ethyl ester		3	2	0	H226
n-Butyl acetate		2	3	0	H226, H335+H336
2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate		NO DATA	NO DATA	NO DATA	NO DATA
Solvent naphtha (petroleum), light arom.		1	2	0	H226, H340, H350

### 3. Composition/information on ingredients

Chemical Name	Trade names and Synonyms	CAS-NO	Content(%)
Propylene glycol methyl ether acetate	Propylene glycol methyl ether acetate	108-65-6	46~56
Dimethyl carbonate	Dimethyl carbonate	616-38-6	30~40
3-Ethoxypropanoic acid ethyl ester	3-Ethoxypropanoic acid ethyl ester	763-69-9	5~15
n-Butyl acetate	n-Butyl acetate	123-86-4	5~15
2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate	2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate	26588-80-7	1~10
Solvent naphtha (petroleum), light arom.	Solvent naphtha (petroleum), light arom.	64742-95-6	1~10

### 4. First-aid measures

- A. Eye Contact : Flush exposed eyes with plenty of water for more than 15minutes.  
If irritation, pain, swelling, tears or glaring happens, take medical assistant immediately
- B. Skin Contact : Remove exposed clothing, and wash off exposed area with soap and water.  
If symptoms like irritation or pain occurs, take medical assistant immediately.  
Wash off with soap and water for more than 15 minutes. And take medical assistant immediately.
- C. Inhalation : Avoid from exposure, and move into an area with fresh air.  
If not breathing, perform the artificial respiration.  
If inhaled or swallowed, do not perform the inhalation phase of breathing  
Perform the artificial respiration, using the pocket mask with one way valves or other respiratory medical devices.  
If hard to breathe, administering oxygen  
Remove contaminated clothing and shoes, and isolate it.  
Take a medical assistant immediately.
- D. Ingestion Contact : Inducing vomit.  
If unconscious, do not induce vomiting. In case of vomiting, keep head down under hip to prevent lung inhalation.  
If ingested large quantity, take medical assistant.  
Take proper medical assistant by symptoms.  
It is need to be considered that early removal of some ingested material by gastric lavage must be weighed against potential complications of bleeding or perforation
- E. Notes to Physician : There is no specific antidote and take an appropriate medical treatment.

### 5. Fire-fighting measures

- A. Suitable (Unsuitable) extinguishing media  
 Suitable extinguishing media : Powder extinguishing agent, gaseous Extinguishing Agent, and regular foam.  
 (Unsuitable) extinguishing media : Avoid digestion using direct water.  
 Case of big fire : Spread large amount of the extinguishing agent as a mist form with staying against wind.  
Stay away more than 800m to avoid tank explosion.  
Use appropriate protective device depend on the situation.
- B. Specific hazards arising from the chemical  
 Pyrolysate : Carbon dioxide, toxic carbon compounds/Nitrogen compounds/sulfur compounds  
 Fire and Explosion danger : Risk of medium-sized fire.
- C. Special protective actions for fire-fighters  
 Personal Precautions, protective equipment : Gas mask or air respirator, heat resistant clothing, heat resistant helmet, heat resistant gloves, heat resistant boots  
 Emergency procedures : Use appropriate extinguishing agents to catch fire.  
If there is no risk, moving containers away from fire.  
Cooling containers with water long time after extinguish fire.  
Block the area except for the fire-suppression personnel.

### 6. Accidental release measures

- A. Personal Precautions, protective equipment and emergency procedures  
 Personal Precautions, protective equipment : Gas mask for organic gases, other appropriate protective device / clothing / gloves.  
 Emergency procedures : Take an action to block the leakage if there is no risk.  
Spray water to reduce amount of steam.  
Do work with the personal protected devices such as gas mask for organic gases other appropriate protective devices / clothing / gloves.  
Do not contact on the bare skin
- B. Environmental precautions  
 Atmosphere : Do install the local ventilations and full ventilation system  
Using local ventilation to Minimize the exposure to worker.  
 Soil : Trap spilled material at bottom in deep water pockets, excavated holding areas or within sand bag barriers.  
Use absorbent to collect the appropriate container.  
 Under water : Use absorbent to collect the appropriate container.  
Collect spilled material with mechanic devices
- C. Methods and materials for containment and cleaning up  
 Small spill : Absorb for use sand or other non-combustible material.  
Move to appropriate container for disposal of spilled material collected.

- Large spill : Prohibit access of unnecessary people, isolate hazard area to secure.  
Notify to central and local government, when emissions are above regulation.

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## 7. Handling and storage

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- A. Precautions for safe handling : Keep or handle followed by Dangerous goods Safety Management Act  
Ground for preventing the static discharge  
Seal the container for minimizing the petroleum steam  
Use local ventilations and a full ventilation system when handling
- B. Conditions for safe storage, including any incompatibilities : Because of evaporation and contamination concerns, airtight the container and store in a well-ventilated building.  
Avoid direct sunlight while storing outdoor.  
Storage temperature: 5 ~ 35 °C  
Avoid strong oxidizing agents, acid.  
Stored in an isolated place, freezing caution, high temperature body caution.

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## 8. Exposure controls/personal protection

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- A. Exposure Limits
  - Propylene glycol methyl ether acetate
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
  - Dimethyl carbonate
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
  - 3-Ethoxypropanoic acid ethyl ester
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
  - n-Butyl acetate
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
  - 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
  - Solvent naphtha (petroleum), light arom.
    - ACGIH : NO DATA
    - Biological exposure indices : NO DATA
- B. Engineering Controls :
  - ▷ Do install the local ventilations and full ventilation system
  - ▷ Using local ventilation to Minimize the exposure to worker.
  - ▷ NO DATA
  - ▷ NO DATA
- C. Personal Protective Equipment
  - Respiratory protection : Respirators should be authorized by Korea Occupational Safety and Health Agency  
Use the personal protect respirator for organic solvent or higher level of capacity when workers are supposed to be exposed under unsuitable respiratory working condition, or longer period exposure than standard level.  
Consider warning properties before use.  
Respiratory protection may be needed, while frequent use or heavy exposure.  
Respiratory protection is ranked in order from minimum to maximum
  - Eye protection : Use the respirator for organic solvent or higher level.  
Install washing facilities and an emergency washing facilities close to workplace.  
Let workers do wear the safety glasses in case hazard caused by mist may be expected.
  - Hand protection : Do the workers wear the impermeable protective gloves made from rubber/PVC due to skin irritation may be supposed by chronicle and long period exposure.  
Wear the chemical protective gloves  
Wear appropriate protective gloves
  - Skin protection : Work after wearing the impermeable protective apron made by rubber/PVC in case hazard caused by exposure or spill, wear the impermeable whole body protective clothing if needed.  
Wear appropriate chemical protective clothing.  
Wear cleanroom garment or appropriate protective clothing to prevent contamination

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## 9. Physical and chemical properties

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- A. Appearance : Liquid
- B. Odor : Solvent Odor
- C. Odor threshold : NO DATA
- D. PH : NO DATA
- E. Melting point/Freezing point(°C) : NO DATA
- F. Initial Boiling Point/Boiling Ranges(°C) : 55.5~172.8
- G. Flash point(°C) : 33.2
- H. Evaporating Rate : NO DATA
- I. Flammability(solid, gas)(°C) : NON Flammable

- J. Upper/Lower Flammability or explosive limits : NO DATA
- K. Vapour pressure : NO DATA
- L. Solubility : NO DATA
- M. Vapour density : higher than air
- N. Specific gravity : 0.8-1.0
- O. Partition coefficient of n-octanol/water : NO DATA
- P. Autoignition temperature(°C) : 354
- Q. Decomposition temperature(°C) : NO DATA
- R. Viscosity : NO DATA
- S. Molecular weight : NO DATA

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## 10. Stability and reactivity

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- A. Chemical stability : NO DATA
- B. Possibility of hazardous reactions : Do not contact with heat, spark, flame or other flammable sources  
Avoid contaminants and friction
- C. Conditions to avoid : Oxidation agent, metal and combustible materials
- D. Hazardous decomposition products : Thermal decomposition products (carbon etc..)

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## 11. Toxicological information

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- A. Information on the likely routes of exposure
- Respiratory tracts : Adverse lung effects, Dyspnoea, Hypothermia, Vomiting
  - Oral : Vomiting, Diarrhea, Stomach pain, Irregular heartbeat
  - Skin : Irritation, Burn, Adverse nerve effects
  - Eye : Irritation, eye damage
- B. Delayed and immediate effects and also chronic effects from short and long term exposure
- Propylene glycol methyl ether acetate
    - Acute toxicity
      - Oral : LD50 = 8532 mg/kg Rat
      - Dermal : LD50 > 5000 mg/kg Rabbit
      - Inhalation : LD50 > 5000 mg/kg Rabbit
    - Skin corrosion/irritation : rabbit: non-Irritation
    - Serious eye damage/irritation : Rabbit: mild irritant
    - Respiratory sensitization : NO DATA
    - Skin sensitization : Guinea pig / maximization test (GLP): No sensitization
    - Carcinogenicity
      - IARC : NO DATA
      - OSHA : NO DATA
      - ACGIH : NO DATA
      - NTP : NO DATA
      - EU CLP : NO DATA
    - Germ cell mutagenicity : In vitro - Salmonella typhimurium/TA98, TA100, TA1535, TA1537 (ames test, GLP): With and without metabolic activation system- Negative, CHL Cells/Chromosomal abnormalitiestest (GLP):With and without metabolic activation system- Negative, rat Hepatocyte/UDStest (GLP)
    - Reproductive toxicity : In vitro - Salmonella typhimurium/TA98, TA100, TA1535, TA1537 (Return mutation test, GLP): Negative (negative), CHL Cells / Chromosome aberration test (GLP): Negative (negative), rat hepatocyte / UDS test (GLP) : Negative in the absence of metabolic activation system
    - STOT-single exposure : Reported liver effects in humans. Rat Causes affect the spleen. In mice causes an effect on the central nervous system, and lung. That the anesthetic effect on the animal. Irritating to the prayers of people. (ACGIH, etc.)
    - STOT-repeated exposure : Reported affect the kidneys, liver, central nervous system in humans. (PATTY 5th)
    - Aspiration hazard : NO DATA
  - Dimethyl carbonate
    - Acute toxicity
      - Oral : LD50 = 13000 mg/kg Rat
      - Dermal : LD50 = 5000 mg/kg Rabbit
      - Inhalation : LD50 = 5000 mg/kg Rabbit
    - Skin corrosion/irritation : non-irritating(rabbit)
    - Serious eye damage/irritation : Mild irritant(rabbit)
    - Respiratory sensitization : NO DATA
    - Skin sensitization : NO DATA
    - Carcinogenicity
      - IARC : NO DATA
      - OSHA : NO DATA
      - ACGIH : NO DATA
      - NTP : NO DATA
      - EU CLP : NO DATA
    - Germ cell mutagenicity : NO DATA
    - Reproductive toxicity : NO DATA
    - STOT-single exposure : NO DATA
    - STOT-repeated exposure : NO DATA
    - Aspiration hazard : NO DATA

- 3-Ethoxypropanoic acid ethyl ester
  - Acute toxicity
    - Oral : LD50 = 3200 mg/kg Rat
    - Dermal : LD50 = 10000 mg/kg rabbit
    - Inhalation : LD50 = 10000 mg/kg rabbit
  - Skin corrosion/irritation : Causes weak stimulus in guinea pigs
  - Serious eye damage/irritation : Mild irritation in rabbits
  - Respiratory sensitization : NO DATA
  - Skin sensitization : Reported no skin sensitization guinea pig
  - Carcinogenicity
    - IARC : NO DATA
    - OSHA : NO DATA
    - ACGIH : NO DATA
    - NTP : NO DATA
    - EU CLP : NO DATA
  - Germ cell mutagenicity : In vitro Ames microbialtest : Negative
  - Reproductive toxicity : In vitro Ames microbialtest : Negative
  - STOT-single exposure : NO DATA
  - STOT-repeated exposure : NO DATA
  - Aspiration hazard : NO DATA
- n-Butyl acetate
  - Acute toxicity
    - Oral : LD50 = 14130 mg/kg Rat
    - Dermal : LD50 = 17600 mg/kg Rabbit
    - Inhalation : LD50 = 17600 mg/kg Rabbit
  - Skin corrosion/irritation : Causes a weak stimulus person.
  - Serious eye damage/irritation : Non-irritating to rabbit eye irritation
  - Respiratory sensitization : NO DATA
  - Skin sensitization : Not a skin sensitizer
  - Carcinogenicity
    - IARC : NO DATA
    - OSHA : NO DATA
    - ACGIH : NO DATA
    - NTP : NO DATA
    - EU CLP : NO DATA
  - Germ cell mutagenicity : NO DATA
  - Reproductive toxicity : NO DATA
  - STOT-single exposure : Central nervous system disorders who. pulmonary edema, respiratory irritation.
  - STOT-repeated exposure : NO DATA
  - Aspiration hazard : NO DATA
- 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
  - Acute toxicity
    - Oral : NO DATA
    - Dermal : NO DATA
    - Inhalation : NO DATA
  - Skin corrosion/irritation : NO DATA
  - Serious eye damage/irritation : NO DATA
  - Respiratory sensitization : NO DATA
  - Skin sensitization : NO DATA
  - Carcinogenicity
    - IARC : NO DATA
    - OSHA : NO DATA
    - ACGIH : NO DATA
    - NTP : NO DATA
    - EU CLP : NO DATA
  - Germ cell mutagenicity : NO DATA
  - Reproductive toxicity : NO DATA
  - STOT-single exposure : NO DATA
  - STOT-repeated exposure : NO DATA
  - Aspiration hazard : NO DATA
- Solvent naphtha (petroleum), light arom.
  - Acute toxicity
    - Oral : LD50 = 8400 mg/kg Rat
    - Dermal : LD50 > 2000 mg/kg Rabbit
    - Inhalation : LD50 > 2000 mg/kg Rabbit
  - Skin corrosion/irritation : weakstimulus(rabbit)
  - Serious eye damage/irritation : Mild irritant(rabbit)
  - Respiratory sensitization : NO DATA
  - Skin sensitization : Non-sensitizer (Guinea pig)
  - Carcinogenicity
    - IARC : NO DATA
    - OSHA : NO DATA
    - ACGIH : NO DATA
    - NTP : NO DATA
    - EU CLP : Carc. 1B
  - Germ cell mutagenicity : EU CLP: 1B (case containing less than 0.1% of the benzene in a weight ratio of the material not applied to the present classification)
  - Reproductive toxicity : EU CLP: 1B (case containing less than 0.1% of the benzene in a weight ratio of the material not applied to the present classification)
  - STOT-single exposure : Affecting the central nervous system. Inhalation of high concentrations vapors may cause loss of consciousness.

- STOT-repeated exposure : NO DATA
- Aspiration hazard : Harmful aspiration concerns

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## 12. Ecological information

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### A. Ecotoxicity

- Propylene glycol methyl ether acetate
  - Fish : LC50  $\geq$  100 mg/ℓ 96 hr *Oryzias latipes*
  - Crustaceans : EC50 = 373 mg/ℓ 48 hr *Daphnia magna*
  - Algae : EC50  $\geq$  1000 mg/ℓ 72 hr *Selenastrum capricornutum*
- Dimethyl carbonate
  - Fish : NO DATA
  - Crustaceans : NO DATA
  - Algae : NO DATA
- 3-Ethoxypropanoic acid ethyl ester
  - Fish : LC50 = 88 mg/ℓ 96 hr *Pimephales promelas*
  - Crustaceans : LC50 = 970 mg/ℓ 48 hr *Daphnia magna*
  - Algae : NO DATA
- n-Butyl acetate
  - Fish : LC50 = 62 mg/ℓ 96 hr
  - Crustaceans : LC50 = 32 mg/ℓ 48 hr
  - Algae : NO DATA
- 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
  - Fish : NO DATA
  - Crustaceans : NO DATA
  - Algae : NO DATA
- Solvent naphtha (petroleum), light arom.
  - Fish : LC50 = 9.22 mg/ℓ 96 hr *Oncorhynchus mykiss*
  - Crustaceans : EC50 = 6.14 mg/ℓ 48 hr *Daphnia magna*
  - Algae : EC50 = 19 mg/ℓ 72 hr *Selenastrum capricornutum*

### B. Persistence and degradability

- Propylene glycol methyl ether acetate
  - Persistence : log Kow = 0.43
  - Degradability : NO DATA
- Dimethyl carbonate
  - Persistence : NO DATA
  - Degradability : NO DATA
- 3-Ethoxypropanoic acid ethyl ester
  - Persistence : log Kow = 1.35
  - Degradability : BOD5/COD = 0.17
- n-Butyl acetate
  - Persistence : log Kow = 1.78
  - Degradability : NO DATA
- 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
  - Persistence : NO DATA
  - Degradability : NO DATA
- Solvent naphtha (petroleum), light arom.
  - Persistence : log Kow = 2.1 ~ 6 (Estimates)
  - Degradability : BOD5/COD = 0.43

### C. Bioaccumulative potential

- Propylene glycol methyl ether acetate
  - Bioaccumulative potential : NO DATA
  - Biodegradation : Biodegradability > 60 (%) 28 day
- Dimethyl carbonate
  - Bioaccumulative potential : NO DATA
  - Biodegradation : NO DATA
- 3-Ethoxypropanoic acid ethyl ester
  - Bioaccumulative potential : BCF = 3
  - Biodegradation : Biodegradability = 43 (%) 28 day (GLP data)
- n-Butyl acetate
  - Bioaccumulative potential : NO DATA
  - Biodegradation : Biodegradability = 98 (%)
- 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
  - Bioaccumulative potential : NO DATA
  - Biodegradation : NO DATA
- Solvent naphtha (petroleum), light arom.
  - Bioaccumulative potential : NO DATA
  - Biodegradation : NO DATA

### D. Mobility in soil

- Propylene glycol methyl ether acetate
  - ▷ NO DATA
- Dimethyl carbonate
  - ▷ NO DATA
- 3-Ethoxypropanoic acid ethyl ester
  - ▷ NO DATA
- n-Butyl acetate

- ▷ NO DATA
  - 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
    - ▷ NO DATA
  - Solvent naphtha (petroleum), light arom.
    - ▷ NO DATA
- E. Other adverse effects
- Propylene glycol methyl ether acetate
    - ▷ NO DATA
  - Dimethyl carbonate
    - ▷ NO DATA
  - 3-Ethoxypropanoic acid ethyl ester
    - ▷ Shellfish - NOEC : 9.5 mg/ l /48hours
  - n-Butyl acetate
    - ▷ NO DATA
  - 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
    - ▷ NO DATA
  - Solvent naphtha (petroleum), light arom.
    - ▷ NO DATA

### 13. Disposal considerations

- A. Disposal methods : Disposal material should keep in the airtighted container, and consign according to Waste Mateial Management Act
- B. Special precautions for disposal : Prohibit the unauthorized disposal and incineration due to adversely affect natural ecosystems  
Discard it followed by appropriate regulations

### 14. Transport information

- A. UN number : 1263
- B. Proper shipping name : Paint (including paint, lacquer, enamel, colorants, shellac solutions, varnish, polish, liquid filler and liquid lacquer sealer) or related materials (including paint diluent and reductant).
- C. Hazard class : 3
- D. Packing group : III
- E. Marine pollutant : N/A
- F. Special precautions for user related to transport or transportation measures
- EmS FIRE SCHEDULE : F-E
  - EmS SPILLAGE SCHEDULE : S-E

### 15. Regulatory information

- Propylene glycol methyl ether acetate
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations
    - ▷ OSHA PROCESS SAFETY (29CFR1910.119) : notapplicable
    - ▷ CERCLA Section 103 (40CFR302.4) : notapplicable
    - ▷ EPCRA Section 302 (40CFR355.30) : notapplicable
    - ▷ EPCRA Section 304 (40CFR355.40) : notapplicable
    - ▷ EPCRA Section 313 (40CFR372.65) : notapplicable
  - Rotterdam Convention listed ingredients : NO DATA
  - Stockholm Convention listed ingredients : NO DATA
  - Montreal Protocol listed ingredients : NO DATA
- Dimethyl carbonate
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations
    - ▷ OSHA PROCESS SAFETY (29CFR1910.119) : notapplicable
    - ▷ CERCLA Section 103 (40CFR302.4) : notapplicable
    - ▷ EPCRA Section 302 (40CFR355.30) : notapplicable
    - ▷ EPCRA Section 304 (40CFR355.40) : notapplicable
    - ▷ EPCRA Section 313 (40CFR372.65) : notapplicable
  - Rotterdam Convention listed ingredients : NO DATA
  - Stockholm Convention listed ingredients : NO DATA
  - Montreal Protocol listed ingredients : NO DATA
- 3-Ethoxypropanoic acid ethyl ester
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations

- ▷ OSHA PROCESS SAFETY (29CFR1910.119) : notapplicable
- ▷ CERCLA Section 103 (40CFR302.4) : notapplicable
- ▷ EPCRA Section 302 (40CFR355.30) : notapplicable
- ▷ EPCRA Section 304 (40CFR355.40) : notapplicable
- ▷ EPCRA Section 313 (40CFR372.65) : notapplicable
- Rotterdam Convention listed ingredients : NO DATA
- Stockholm Convention listed ingredients : NO DATA
- Montreal Protocol listed ingredients : NO DATA
- n-Butyl acetate
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations
    - ▷ OSHA PROCESS SAFETY (29CFR1910.119) : notapplicable
    - ▷ CERCLA Section 103 (40CFR302.4) : 2267.995 kg 5000 lb
    - ▷ EPCRA Section 302 (40CFR355.30) : notapplicable
    - ▷ EPCRA Section 304 (40CFR355.40) : notapplicable
    - ▷ EPCRA Section 313 (40CFR372.65) : notapplicable
  - Rotterdam Convention listed ingredients : NO DATA
  - Stockholm Convention listed ingredients : NO DATA
  - Montreal Protocol listed ingredients : NO DATA
- 2-Methyl-2-propenoic acid 2-hydroxyethyl ester polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations
    - ▷ OSHA PROCESS SAFETY (29CFR1910.119) : NO DATA
    - ▷ CERCLA Section 103 (40CFR302.4) : NO DATA
    - ▷ EPCRA Section 302 (40CFR355.30) : NO DATA
    - ▷ EPCRA Section 304 (40CFR355.40) : NO DATA
    - ▷ EPCRA Section 313 (40CFR372.65) : NO DATA
  - Rotterdam Convention listed ingredients : NO DATA
  - Stockholm Convention listed ingredients : NO DATA
  - Montreal Protocol listed ingredients : NO DATA
- Solvent naphtha (petroleum), light arom.
  - Information of EU Classification
    - ▷ Classification : NO DATA
    - ▷ Risk Phrases : NO DATA
    - ▷ Safety Phrase : NO DATA
  - U.S. Federal regulations
    - ▷ OSHA PROCESS SAFETY (29CFR1910.119) : notapplicable
    - ▷ CERCLA Section 103 (40CFR302.4) : notapplicable
    - ▷ EPCRA Section 302 (40CFR355.30) : notapplicable
    - ▷ EPCRA Section 304 (40CFR355.40) : notapplicable
    - ▷ EPCRA Section 313 (40CFR372.65) : notapplicable
  - Rotterdam Convention listed ingredients : NO DATA
  - Stockholm Convention listed ingredients : NO DATA
  - Montreal Protocol listed ingredients : NO DATA

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## 16. Other information

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### A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS,NLM, SIDS, IPCS

B. Issue date : 2015-09-25

C. Revision number and Last date revised : 6.(2022-07-21)

D. Other : " [WWW.NOROO.CO.KR](http://WWW.NOROO.CO.KR) "