1. Identification

A. Product name : Easy Non Slip

B. Recommended Use and Restriction on Use
- ○ General use : for concrete
- ○ 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
Not applicable

B. GHS label elements
- ○ Hazard symbols

- ○ Signal words : Warning
- ○ Hazard statements :
  Harmful if swallowed
- ○ Precautionary statements
  - Prevention
    Obtain special instructions before use
    Do not handle until all safety precautions have been read and understood
  - Response
    IF SWALLOWED AND IN EYES: Immediately call a POISON CENTER or doctor/physician.
    IF ON SKIN: Wash with plenty of soap and water.
  - Storage
    Store locked up.
    Protect from sunlight. Store in a well-ventilated place.
  - Disposal
    Dispose of contents/container in accordance with local/regional/national/international regulation.

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

NFPA grade / Chemical Name	Health	Flammability	Reactivity
Water	0	0	0
Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer	NO DATA	NO DATA	NO DATA
2-Methyl-2-propenoic acid methyl ester homopolymer	1	1	0

3. Composition/information on ingredients

Chemical Name	Trade names and Synonyms	CAS-NO	Content(%)
Water	Water	7732-18-5	57~67
Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer	Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer	64771-95-5	34~44
2-Methyl-2-propenoic acid methyl ester homopolymer	2-Methyl-2-propenoic acid methyl ester homopolymer	9011-14-7	1~10

4. First-aid measures

A. Eye Contact : Do not rub your eyes. If you wear a contact lenses, remove them first. If irritation, pain, swelling, tears or glaring happens, take medical assistant immediately Flush exposed eyes with plenty of water for more than 15minutes.

B. Skin Contact : Wear gloves while washing the patient and avoid contact with exposed clothes. Wash carefully after handling. If symptoms like redness or irritation occurs, take medical assistant immediately. Wash off with soap and water for more than 15 minutes. And take medical assistant immediately. If symptoms like irritation or pain occurs, take medical assistant immediately. Remove exposed clothing, and wash off exposed area with soap and water.

C. Inhalation : Take a medical assistant immediately. Remove contaminated clothing and shoes, and isolate it. If hard to breathe, administering oxygen Perform the artificial respiration, using the pocket mask with one way valves or other respiratory medical devices. If inhalated or swallowed, do not perform the inhalation phase of breathing If not breathing, perform the artificial respiration. Avoid from exposure, and move into an area with fresh air.

D. Ingestion Contact : Flush mouth with water immediately. 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 Take proper medical assistant by symtoms. If ingested large quantity, take medical assistant. Do not try to induce vomiting, if occurs, keep head below hips to prevent swallow into lungs. Inducing vomit.

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 extinguishing fire with halogenting agent. Avoid use waterjet as fire extinguishing agent. Water is not appropriate extinguishing agent
○ Case of big fire : Use appropriate protective device depend on the situation. Stay away more than 800m to avoid tank explosion. Spread large amount of the extinguishing agent as a mist form with staying against wind.

B. Specific hazards arising from the chemical
○ Pyrolysate : Irritating and highly toxic gases may produced during the combustion by pyrolysis or combustion itself. Carbon dioxide, toxic carbon compounds/Nitrogen compounds/sulfur compounds
○ Fire and Explosion danger : Vapor may be released to the ignition source and ignited. Aqueous (Exclude water-soluble one) products does not have risk of fire or explosion hazard by itself. Vapors may explode indoors, outdoors, and in drains Leakages may fire / explosion hazard and could be easily ignited by heat, sparks or flames. Container may explode when heating May form explosive mixture at or above ignition point 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 : Do not approach if the tank is on fire. Avoid inhalation of the substance or combustion products. Use an unmanned fire extinguishing device, in case of large-sized fire. If not, leave it to burn. Tell the fire department, location of the fire and the hazardous features. Protect others from access and prohibit access to dangerous areas. Block the area except for the fire-suppression personnel. Cooling containers with water long time after extinguish fire. If there is no risk, moving containers away from fire. Use appropriate extinguishing agents to catch fire.

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 : Do not contact on the bare skin Do work with the personal protected devices such as gas mask for organic gases other appropriate protective devices / clothing / gloves. Spray water to reduce amount of steam. Take an action to block the leakage if there is no risk.

B. Environmental precautions
○ Atmosphere : Using local ventilation to Minimize the exposure to worker. Do install the local ventilations and full ventilation system
○ Soil : Use absorbent to collect the appropriate container. Trap spilled material at bottom in deep water pockets, excavated holding areas or within sand bag barriers.
○ Under water : Collect spilled material with mechanic devices Use absorbent to collect the appropriate container.

C. Methods and materials for containment and cleaning up
○ Small spill : Move to appropriate container for disposal of spilled material collected. Absorb for use sand or other non-combustible material.
○ Large spill : Notify to central and local government, when emissions are above regulation. Prohibit access of unnecessary people, isolate hazard area to secure.

7. Handling and storage

A. Precautions for safe handling : Use local ventilations and a full ventilation system when handling Seal the container for minimizing the petroleum steam Ground for preventing the static discharge Keep or handle followed by Dangerous goods Safety Management Act

B. Conditions for safe storage, including any incompatibilities : Stored in an isolated place, freezing caution, high temperature body caution. Avoid strong oxidizing agents, acid. Storage temperature: 5 ~ 35 ℃ Avoid direct sunlight while storing outdoor. Because of evaporation and contamination concerns, airtight the container and store in a well-ventilated building.

8. Exposure controls/personal protection

A. Exposure Limits
○ Water
- ACGIH : NO DATA
- Biological exposure indices : NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
- ACGIH : NO DATA
- Biological exposure indices : NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- 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 : If there is possibility of direct contact or exposure to these substances should wear a authorized dust-proof mask or respirator for organic compounds
○ Eye protection : If there is possibility of direct contact or exposure to these substances should wear authorized safty glasses or mask. Let workers do wear the safety glasses in case hazard caused by mist may be expected. Install washing facilities and an emergency washing facilities close to workplace.
○ Hand protection : Wear appropriate protective gloves If there is possibility of direct contact or exposure to these substances should wear authorized safety gloves for chemicals.
○ Skin protection : Wear cleanroom garment or appropriate protective clothing to prevent contamination If there is a possibility of direct contact or exposure to the substance Wear protective clothing for chemical substances Wear appropriate chemical protective clothing.

9. Physical and chemical properties

A. Appearance : liquid

B. Odor : nothing

C. Odor threshold : NO DATA

D. PH : 11~13

E. Melting point/Freezing point(℃) : NO DATA

F. Initial Boiling Point/Boiling Ranges(℃) : NO DATA

G. Flash point(℃) : 1000℃

H. Evaporating Rate : NO DATA

I. Flammability(solid, gas)(℃) : NON Flammable

J. Upper/Lower Flammability or explosive limits : NO DATA

K. Vapour pressure : NO DATA

L. Solubility : NO DATA

M. Vapour density : NO DATA

N. Specific gravity : NO DATA

O. Partition coefficient of n-octanol/water : NO DATA

P. Autoignition temperature(℃) : NO DATA

Q. Decomposition temperature(℃) : NO DATA

R. Viscosity : 10~20sec/F.C #4

S. Molecular weight : NO DATA

10. Stability and reactivity

A. Chemical stability : NO DATA

B. Possibility of hazardous reactions : Avoid contaminants and friction Do not contact with heat, spark, flame or other flammable sources

C. Conditions to avoid : Oxidation agent, metal and combustable materials

D. Hazardous decomposition products : Thermal decomposition products (carbon etc.,)

11.Toxicological information

A. Information on the likely routes of exposure
○ Respiratory tracts : Adverse lung effects, Dyspnoea, Hypothermia, Vomitting
○ Oral : Vomitting, 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
○ Water
- Acute toxicity
Oral : LD50 = 90000 mg/kg Rat
Dermal : NO DATA
Inhalation : NO DATA
- Skin corrosion/irritation : notapplicable
- 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

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
- 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

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- Acute toxicity
  Oral : NO DATA
  Dermal : NO DATA
  Inhalation : NO DATA
- Skin corrosion/irritation : Causes of skin stimulus
- Serious eye damage/irritation : Causes eye irritation
- Respiratory sensitization : NO DATA
- Skin sensitization : NO DATA
- Carcinogenicity
  IARC : Group 3
  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 : Inhalation airway irritation
- STOT-repeated exposure : NO DATA
- Aspiration hazard : NO DATA

12. Ecological information

A. Ecotoxicity

○ Water
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

B. Persistence and degradability

○ Water
- Persistence : log Kow = -1.38
- Degradability : NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
- Persistence : NO DATA
- Degradability : NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- Persistence : NO DATA
- Degradability : NO DATA

C. Bioaccumulative potential

○ Water
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer

- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

D. Mobility in soil

○ Water
▷ NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
▷ NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
▷ NO DATA

E. Other adverse effects

○ Water
▷ NO DATA

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
▷ NO DATA

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
▷ NO DATA

13. Disposal considerations

A. Disposal methods : To prevent environmental pollution, dispose it to a licensed waste disposal company. Recycle the recycleable materials, such as organic solvents, and then incinerate the residue at high temperature. Pre-treat with oil-water separation method when it is available. Disposal material should keep in the airtighted container, and consign according to Waste Mateial Management Act

B. Special precautions for disposal : Discard it followed by appropriate regulations Prohibit the unauthorized disposal and incineration due to adversely affect natural ecosystems

14. Transport information

A. UN number : Non regulated

B. Proper shipping name : N/A

C. Hazard class : Non dangerous goods

D. Packing group : N/A

E. Marine pollutant : N/A

F. Special precautions for user related to transport or transportation measures

○ EmS FIRE SCHEDULE : N/A
○ EmS SPILLAGE SCHEDULE : N/A

15. Regulatory information

○ Water
- 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

○ Methyl methacrylate, n-butyl methacrylate, 2-ethylhexyl acrylate-2-hydroxyethyl methacrylate, methacrylic acid copolymer
- 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

○ 2-Methyl-2-propenoic acid methyl ester homopolymer
- 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

16. Other information

A. Reference
This MSDS is based on 'Industrial safety and health' Act paragraph 41 and Proclamation of Ministry of Labor and Employment 2016-19, and considered domestic regulations.
This MSDS is based on KOSHA, NITE, ESIS, NLM, SIDS, IPCS, NCIS.

B. Issue date : 2019-02-11 오후 2:53:24

C. Revision number and Last date revised : 3.(15/07/2024 오후 3:33:35)

D. Other : " WWW.NOROO.CO.KR"