## 1. Identification

A. Product name : ANYCOLOR(SF) OXIDE YELLOW(12%)
○ Usage category : Coloring agent

B. Recommended Use and Restriction on Use
○ General use : SOLVENT FREE EPOXY COLORANT
○ Restriction on use : Restricted to use other than recommended use

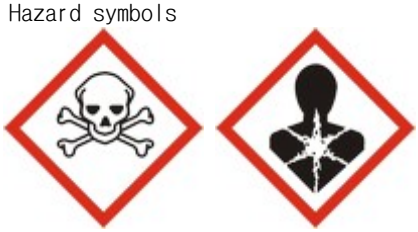
C. Manufacturer / Supplier / distributor information
○ Company name : NOROO Paint & Coatings Co., Ltd.
○ Address : 351, Bakdal-ro, Manan-gu, Anyang-si, Gyeonggi-do, Korea
○ Emergency telephone number : +82-31-467-6114

D. AU Importer
○ Company Name: Synergy Building Supplies
○ Address: 236 PLANET ST WELSHPOOL WA 6106
○ Emergency Telephone Number: 1300 655 853

## 2. Hazard identification

A. GHS Classification
Acute toxicity (inhalation: vapor) Category 3
Specific target organ toxicity(Repeated exposure) Category 2
Skin sensitization Category 1
Ozone Layer Hazards

B. GHS label elements
○ Hazard symbols



○ Signal words : DANGER
○ Hazard statements :
H331 Toxic if inhaled
H373 Prolonged or repeated exposure may cause damage to the liver, testes, skin, respiratory system, blood and central nervous system of the body (Refer Section SDS 11)
H317 May cause an allergic skin reaction
H420 It destroys the upper layer of the ozone layer and is harmful to public health and environment.
○ Precautionary statements
- Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
- Response
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P321 Specific treatment
P314 Get medical advice/attention if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash before reuse.
- Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed
P405 Save by locking.

- Disposal

P501 Dispose of the contents and containers in accordance with waste-related laws.
P502 Please refer to the information on (recycling/recycling) provided by (manufacturer/supplier).

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

| NFPA grade<br>Chemical Name | Health | Flammability | Reactivity | GHS Classification |
|---|---|---|---|---|
| 2,2-Bis(4'-glycidyloxyphenyl)propane | 2 | 2 | 0 | NO DATA |
| Iron hydroxide oxide (Fe(OH)O) | 1 | 0 | 0 | NO DATA |
| Hydrogenated hydrocarbons (C=6-20) polymers | 1 | 1 | 0 | NO DATA |
| Trade secret | NO DATA | NO DATA | NO DATA | NO DATA |
| Dodecylphenol, mixed isomers | NO DATA | NO DATA | NO DATA | NO DATA |
| Benzyl alcohol | 2 | 1 | 0 | H317, H331 |
| 2-Butoxyethanol | 3 | 2 | 0 | H331 |
| (Butoxymethyl)oxirane | 3 | 2 | 1 | H317, H373 |

## 3. Composition/information on ingredients

| Chemical Name | Trade names and Synonyms | CAS-NO | Content(%) |
|---|---|---|---|
| 2,2-Bis(4'-glycidyloxyphenyl)propane | 2,2-Bis(4'-glycidyloxyphenyl)propane | 1675-54-3 | 72～82 |
| Iron hydroxide oxide (Fe(OH)O) | Iron hydroxide oxide (Fe(OH)O) | 20344-49-4 | 10～20 |
| Hydrogenated hydrocarbons (C=6-20) polymers | Hydrogenated hydrocarbons (C=6-20) polymers | 69430-35-9 | 1～10 |
| Trade secret | - | - | 1～10 |
| Benzyl alcohol | Benzyl alcohol | 100-51-6 | 1～10 |
| Dodecylphenol, mixed isomers | Dodecylphenol, mixed isomers | 27193-86-8 | 1～10 |
| 2-Butoxyethanol | 2-Butoxyethanol | 111-76-2 | 1～10 |
| (Butoxymethyl)oxirane | (Butoxymethyl)oxirane | 2426-08-6 | 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 inhalated 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 : Please be advised by doctor whether induction of vomit is demanded or not.
vomiting occurs, keep head below hips to prevent aspiration into lungs.
If ingested large quantity, take medical assistant.
Take proper medical assistant by symtoms.
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 : Notify medical personnel of contaminated situations and have them take appropriate protective measures.

## 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 : Appropriate protective equipment / protection / protective gloves
○ Emergency procedures : Take an action to block the leakage if there is no risk.
Spray water to reduce amount of steam.
The operator should wear appropriate protective equipment (see section "8. Exposure Protection and Personal Protection") to avoid contact with the eyes and skin and inhalation.

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.

## 7. Handling and storage

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 ℃
 Avoid strong oxidizing agents, acid.
 Store at appropriate temperature according to the isolation location, freezing caution, high temperature body caution.

## 8. Exposure controls/personal protection

A. Exposure Limits
 ○ 2,2-Bis(4'-glycidyloxyphenyl)propane
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ Iron hydroxide oxide (Fe(OH)O)
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ Hydrogenated hydrocarbons (C=6-20) polymers
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ Trade secret
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ Dodecylphenol, mixed isomers
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ Benzyl alcohol
  - ACGIH : NO DATA
  - Biological exposure indices : NO DATA
 ○ 2-Butoxyethanol
  - ACGIH : TWA, 20 ppm (97 mg/m3)
  - Biological exposure indices : While urinating Butoxyacetic acid (BAA)(with hydrolysis) : 200 mg/g creatinine(After work)
 ○ (Butoxymethyl)oxirane
  - 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
  Unknown concentration or other life threating danger is imminent: Supplied air respirator(Hybrid airline respirator), and Self contained breathing apparatus(full face)

○ Eye protection : 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 : NO DATA
○ Skin protection : NO DATA

## 9. Physical and chemical properties

A. Appearance : 유색의 액체

B. Odor : 특취

C. Odor threshold : NO DATA

D. PH : NO DATA

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

F. Initial Boiling Point/Boiling Ranges(℃) : 171℃

G. Flash point(℃) : 74

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 : (물)불용성

M. Vapour density : NO DATA

N. Specific gravity : NO DATA

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

P. Autoignition temperature(℃) : 425

Q. Decomposition temperature(℃) : NO DATA

R. Viscosity : 90~110KU

S. Molecular weight : NO DATA

## 10. Stability and reactivity

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 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

○ 2,2-Bis(4'-glycidyloxyphenyl)propane

- Acute toxicity
  Oral : LD50 15600 ㎎/㎏ Other (Other)
  Dermal : LD50 20000 ㎎/㎏ Rabbit
  Inhalation : LD50 20000 ㎎/㎏ Rabbit
- Skin corrosion/irritation : weakstimulus(500mg, rabbit)
- Serious eye damage/irritation : Severe irritation(2mg, 24 시간, rabbit)
- 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 : NO DATA
- STOT-repeated exposure : NO DATA
- Aspiration hazard : NO DATA

○ Iron hydroxide oxide (Fe(OH)O)

- 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

○ Hydrogenated hydrocarbons (C=6-20) polymers

- 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

○ Trade secret
- 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

○ Dodecylphenol, mixed isomers
- 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

○ Benzyl alcohol
- Acute toxicity
  Oral : LD50 = 1230 mg/kg Rat
  Dermal : LD50 = 2000 mg/kg Rabbit
  Inhalation : LD50 = 2000 mg/kg Rabbit
- Skin corrosion/irritation : usuallystimulus(100mg, 24H, rabbit)
- Serious eye damage/irritation : Non-irritating(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

○ 2-Butoxyethanol
- Acute toxicity
Oral : LD50 1414 mg/kg Guinea pig (OECD TG 401, GLP)
Dermal : LD50 >2000 mg/kg Rat (ECHA)
Inhalation : Vapor LC50 >7.4 mg/ℓ 7 hr Rat (ECHA)
- Skin corrosion/irritation : As a result of skin irritation test using rabbits, it is erythema irritation 2, which is not applicable under the GHS standard, but it is sufficient to determine that it is irritating EU Method B.4 (ECHA)
- Serious eye damage/irritation : Eye irritation test results showed conjunctival irritation index 2.6, iritis 0.56, conjunctival edema 1.8, indicating irritation OECD TG405, GLP (ECHA)
- Respiratory sensitization : NO DATA
- Skin sensitization : Skin sensitization test results using guinea pigs non-sensitization (OECD TG 406, ECHA)
- Carcinogenicity
IARC : Group 3
OSHA : NO DATA
ACGIH : A3
NTP : NO DATA
EU CLP : NO DATA
- Germ cell mutagenicity : Reverse mutation test using in vitro microorganisms OECD TG471, chromosomal abnormality test using mammalian cells OECD TG473 result negative, micronucleus test using mammalian bone marrow cells in vivo OECD TG474 result negative (ECHA)
- Reproductive toxicity : 2nd generation reproductive toxicity test (NTP) results, NOAEL (parental toxicity) = 720 mg/kg bw/day due to weight loss, fertility, etc., NOAEL (F1, F2) = 720 mg/kg bw/ due to weight loss of offspring day, no effect on reproductive toxicity was observed, developmental toxicity and teratogenic effects were not observed as a result of developmental toxicity test using rats (OECD TG414) NOAEL (development) = 100 mg/kg bw/day, NOAEL (teratogenicity)> 200 mg/kg bw/day (ECHA)
- STOT-single exposure : As a result of respiratory irritation test using mice, RD50 2818 ppm showed minimal or no sensory stimulation (ECHA)
- STOT-repeated exposure : As a result of a 90-day repeated oral toxicity test in rats, OECD TG408 showed some abnormalities in liver and cytoplasm in histopathological findings, but no adverse effects were observed. NOAEL male <69 mg/kg bw/day, NOAEL female <82 mg/kg bw/day 90-day inhalation repeat toxicity test using mice OECD TG413, GLP Results NOAEC <31ppm (ECHA)
- Aspiration hazard : NO DATA

○ (Butoxymethyl)oxirane
- Acute toxicity
Oral : LD50 = 1660 mg/kg Rat
Dermal : LD50 = 788 mg/kg Rabbit
Inhalation : LD50 = 788 mg/kg Rabbit
- Skin corrosion/irritation : weakstimulus(454mg, 3day, rabbit), usuallystimulus(20mg, 24H, rabbit) skin - stimulus
- Serious eye damage/irritation : Severe irritation(750ug, 24hr, rabbit), Mild irritant(91mg, rabbit)
- Respiratory sensitization : NO DATA
- Skin sensitization : Skin sensitization in humans have been reported
- Carcinogenicity
IARC : NO DATA

OSHA : NO DATA
ACGIH : NO DATA
NTP : NO DATA
EU CLP : Carc.2

- Germ cell mutagenicity : Using Mouse Micronucleus test result Positive
- Reproductive toxicity : rat micronucleus test : positive
- STOT-single exposure : Irritating people appear to pray
- STOT-repeated exposure : NO DATA
- Aspiration hazard : NO DATA

## 12. Ecological information

A. Ecotoxicity

○ 2,2-Bis(4'-glycidyloxyphenyl)propane
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ Iron hydroxide oxide (Fe(OH)O)
- Fish : LC50 = 482.465 ㎎/ℓ 96 hr
- Crustaceans : LC50 = 485.139 ㎎/ℓ 48 hr
- Algae : EC50 = 287.651 ㎎/ℓ 96 hr

○ Hydrogenated hydrocarbons (C=6-20) polymers
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ Trade secret
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ Dodecylphenol, mixed isomers
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

○ Benzyl alcohol
- Fish : LC50 = 10 ㎎/ℓ 96 hr
- Crustaceans : NO DATA
- Algae : NO DATA

○ 2-Butoxyethanol
- Fish : LC50 1474 ㎎/ℓ 96 hr Oncorhynchus mykiss(OECD Guideline 203)
- Crustaceans : EC50 1800 ㎎/ℓ 48 hr Daphnia magna(OECD TG 202)
- Algae : EC50 911 ㎎/ℓ 72 hr Selenastrum capricornutum(OECD TG 201)

○ (Butoxymethyl)oxirane
- Fish : NO DATA
- Crustaceans : NO DATA
- Algae : NO DATA

B. Persistence and degradability

○ 2,2-Bis(4'-glycidyloxyphenyl)propane
- Persistence : NO DATA
- Degradability : NO DATA

○ Iron hydroxide oxide (Fe(OH)O)
- Persistence : NO DATA
- Degradability : NO DATA

○ Hydrogenated hydrocarbons (C=6-20) polymers
- Persistence : NO DATA
- Degradability : NO DATA

○ Trade secret

- Persistence : NO DATA
- Degradability : NO DATA

○ Dodecylphenol, mixed isomers
- Persistence : NO DATA
- Degradability : NO DATA

○ Benzyl alcohol
- Persistence : log Kow = 1.1
- Degradability : NO DATA

○ 2-Butoxyethanol
- Persistence : 0.81 log Kow (25 ° C, pH=7, BASF standard method)
- Degradability : NO DATA

○ (Butoxymethyl)oxirane
- Persistence : NO DATA
- Degradability : NO DATA

C. Bioaccumulative potential

○ 2,2-Bis(4'-glycidyloxyphenyl)propane
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ Iron hydroxide oxide (Fe(OH)O)
- Bioaccumulative potential : BCF = 1.352
- Biodegration : NO DATA

○ Hydrogenated hydrocarbons (C=6-20) polymers
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ Trade secret
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ Dodecylphenol, mixed isomers
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

○ Benzyl alcohol
- Bioaccumulative potential : NO DATA
- Biodegration : Biodegradability = 94 (%) 28 day (Aerobic, Activated Sludge)

○ 2-Butoxyethanol
- Bioaccumulative potential : NO DATA
- Biodegration : 90.4 % 28 day (OECD TG 301G)

○ (Butoxymethyl)oxirane
- Bioaccumulative potential : NO DATA
- Biodegration : NO DATA

D. Mobility in soil

○ 2,2-Bis(4'-glycidyloxyphenyl)propane
▷ NO DATA

○ Iron hydroxide oxide (Fe(OH)O)
▷ NO DATA

○ Hydrogenated hydrocarbons (C=6-20) polymers
▷ NO DATA

○ Trade secret
▷ NO DATA

○ Dodecylphenol, mixed isomers
▷ NO DATA

○ Benzyl alcohol
▷ NO DATA

○ 2-Butoxyethanol
▷ NO DATA

○ (Butoxymethyl)oxirane

▷ NO DATA

E. Other adverse effects

○ 2,2-Bis(4'-glycidyloxyphenyl)propane
▷ NO DATA

○ Iron hydroxide oxide (Fe(OH)O)
▷ NO DATA

○ Hydrogenated hydrocarbons (C=6-20) polymers
▷ NO DATA

○ Trade secret
▷ NO DATA

○ Dodecylphenol, mixed isomers
▷ NO DATA

○ Benzyl alcohol
▷ NO DATA

○ 2-Butoxyethanol
▷ Flsh Danio rerio: NOEC14d>100 mg/L OECD TG 204, Crustacean Daphnia magna: NOEC21d=100 mg/L OECD TG 211 (ECHA)

○ (Butoxymethyl)oxirane
▷ 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 : Bussiness that discharge business waste shall process them selves, or delegate to waste treatment processor, recycler, or waste treatment operator.
Dispose of waste in accordance with all applicable laws and regulations.

## 14. Transport information

A. UN number(IMDG CODE/IATA DGR) : Non regulated

B. Proper shipping name : N/A

C. Hazard class : Non dangerous goods

D. Packing group(IMDG CODE/IATA DGR) : N/A

E. Marine pollutant : N/A

F. Special precautions for user related to transport or transportation measures
Local transport follows in accordance with Dangerous goods Safety Management
Package and transport follow in accordance with Department of Transportation

○ EmS FIRE SCHEDULE : N/A

○ EmS SPILLAGE SCHEDULE : N/A

## 15. Regulatory information

○ 2,2-Bis(4'-glycidyloxyphenyl)propane

- 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

○ Iron hydroxide oxide (Fe(OH)O)
- 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

○ Hydrogenated hydrocarbons (C=6-20) polymers
- 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

○ Trade secret
- 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

○ Dodecylphenol, mixed isomers
- 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

○ Benzyl alcohol
- 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

○ 2-Butoxyethanol
- 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

○ (Butoxymethyl)oxirane
- 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
- 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 : 2019-10-02

C. Revision number and Last date revised : 3. 2021-01-13

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