SAFETY DATA SHEET

1. IDENTIFICATION

A. Product name

- QT606-9180

B. Recommended use and restriction on use

- General use : HEAT RESISTANT PAINT
- Restriction on use : Do not use except for purpose

C. Supplier information

- Company name : KCC Corporation
- Address : 30, Bangeojinsunhwando-ro, Dong-gu, Ulsan
- Emergency telephone number : 82-52-280-1717

2. HAZARD IDENTIFICATION

A. GHS Classification

- Flammable liquids : Category3
- Acute toxicity (oral) : Category5
- Acute toxicity (inhalation: vapor) : Category5
- Skin corrosion/irritation : Category2
- Serious eye damage/irritation : Category2A
- Germ cell mutagenicity : Category1B
- Carcinogenicity : Category1A
- Reproductive toxicity : Category1B
- Specific target organ toxicity(Single exposure) : Category1
- Specific target organ toxicity(Single exposure) : Category3(Narcotic effects)
- Specific target organ toxicity(Repeated exposure) : Category1
- Specific target organ toxicity(Repeated exposure) : Category2
- Aspiration hazard : Category1
- Acute aquatic toxicity : Category2
- Chronic aquatic toxicity : Category2

B. GHS label elements

○ **Hazard symbols**

○ **Signal words**

- Danger

○ **Hazard statements**

- H226 Flammable liquid and vapour
- H303 May harmful if swallowed.
- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H333 May be harmful if inhaled.
- H336 May cause drowsiness and dizziness.
- H340 May cause genetic defects
- H350 May cause cancer
- H360 May damage fertility or the unborn child
- H370 Causes damage to organs(Refer Section SDS 11)
- H372 Causes damage to organs through prolonged or repeated exposure (Refer Section SDS 11)

- H373 May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)

- H401 Toxic to aquatic organisms.
- H411 Toxic to aquatic life with long lasting effects

○ **Precautionary statements**

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools. Flammable liquids (chapter 2.6) 1, 2, 3
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe gas/mist/vapours/spray.
- P261 Avoid breathing gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.

2) Response

- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.

- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

- P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P307+P311 If exposed: Call a POISON CENTER or doctor/physician.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P321 Specific treatment
- P331 Do NOT induce vomiting.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.

- P370+P378 In case of fire: Use Suitable extinguishing media for extinction(Refer Section MSDS 5).

- P391 Collect spillage.

3) Storage

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

4) Disposal

- P501 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 (0 ~ 4 level)**

- Health : 2, Flammability : 3, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Xylene	Dimethylbenzene	1330-20-7	20 ~ 26.5
Barium sulfate, natural	Sulfuric acid, barium salt (1:1)	7727-43-7	10 ~ 19.1
Aluminium	Allbri aluminum paste and powder	7429-90-5	10 ~ 11.2
Thermoplastic acrylic resin	-	자료없음	1 ~ 10
Ethylbenzene	Benzene, ethyl-	100-41-4	1 ~ 5.3
Mica-group minerals	Silicate, Mica	12001-26-2	1 ~ 4.2
Quartz (SiO2)	Crystalline silica	14808-60-7	0.1 ~ 3.2
Toluene	Methylbenzene	108-88-3	0.3 ~ 3.2
Solvent naphtha (petroleum), medium aliph.	Medium aliphatic solvent naphtha	64742-88-7	1 ~ 10
Solvent naphtha (petroleum), light arom.	Naphtha	64742-95-6	0.1 ~ 2.8
Chlorite-group minerals	CHLORITE (MINERAL)	1318-59-8	1 ~ 10
Talc, non-asbestos form	Talcum	14807-96-6	0 ~ 1
Secret	Secret	자료없음	10 ~ 20

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.

- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.

- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contact lenses if worn.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contaminated clothing, shoes and isolate.
- Wash thoroughly after handling.

- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.
- Get medical attention immediately.

- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.
- If swallowed, large amounts of water to drink and do not induce vomiting.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

- If exposed or concerned, get medical attention/advice.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Cool containers with water until well after fire is out.
- Keep unauthorized personnel out.

- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

- Notify your local firestation and inform the location of the fire and characteristics hazard.

- Wear appropriate protective equipment.
- Keep containers cool with water spray.
- Vapor or gas is burned at distant ignition sources can be spread quickly.

- Due to the extremely low flash point, irrigating fire extinguishing may be less effective when put out a fire.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.

- Do not touch spilled material. Stop leak if you can do it without risk.
- Move container to safe area from the leak area.

- Handle the damaged containers or spilled material after wearing appropriate protective equipment

- Do not direct water at spill or source of leak.
- Avoid skin contact and inhalation.
- Cleanup and disposal under expert supervision is advised.
- Keep unauthorized people away,isolate hazard area and deny entry.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.

- Notification to central government, local government. When emissions at least of the standard amount

- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal.
- Do not use plastic containers.
- Prevent the influx to waterways, sewers, basements or confined spaces.
- Spilled material should be treated as a potential risk of waste collected.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Wash thoroughly after handling.
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.
- Do not inhale the steam prolonged or repeated.
- Avoid contact with heat, sparks, flame or other ignition sources.
- Contaminated work clothing should not be allowed out of the workplace.

B. Conditions for safe storage, including any incompatibilities

- Save in cool, dry and well ventilated place.
- Check regularly for leaks.
- Do not use damaged containers.
- Do not apply direct heat.

- Prevent static electricity and keep away from combustible materials or heat sources.

- By specifying a storage area for carcinogenic substances.
- Collected them in sealed containers.
- Store away from water and sewer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

○ **ACGIH TLV**

- [Xylene] : TWA 100 ppm (434 mg/m3), STEL, 150 ppm (651 mg/m3)

- [Barium sulfate, natural] : TWA, 50 mg/m3, Inhalable particulate matter (containing no asbestos and <1% crystalline silica)

- [Aluminium] : TWA, 1 mg/m3, Respirable Particulate Matter
- [Ethylbenzene] : TWA, 20 ppm (87 mg/m3)
- [Mica-group minerals] : TWA, 3 mg/m3, Respirable aerosol
- [Quartz (SiO2)] : TWA 0.025 mg/m3, Respirable particulate matter
- [Toluene] : TWA 20 ppm (75 mg/m3)

- [Talc, non-asbestos form] : TWA 2 mg/m3, Respirable particulate matter (containing no asbestos and <1% crystalline silica)

- [Secret] : TWA 10 mg/m3, Total particulate mass
- [Secret] : TWA, 20 ppm (61 mg/m3)
- [Secret] : TWA, 50 ppm (152 mg/m3)

○ **OSHA PEL**

- [Aluminium]: 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)
- [Ethylbenzene]:100ppm 435mg/m3
- [Secret]:100ppm 300mg/m3
- [Barium sulfate, natural]: 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)
- [Quartz (SiO2)]: 10 mg/m3(%SiO2+2)
- [Mica-group minerals]:20 mppcf
- [Talc, non-asbestos form]: 20 mppcf (containing no asbestos, respirable dust)
- [Toluene]: 200 ppm, C 300 ppm
- [Xylene]:100ppm 435mg/m3

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

C. Individual protection measures, such as personal protective equipment

○ **Respiratory protection**

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.

- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use.
- Any chemical cartridge respirator with organic vapor cartridge(s).
- Any chemical cartridge respirator with a full facepiece and organic vaporcartridge(s).
- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

○ **Eye protection**

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

○ **Hand protection**

- Wear appropriate chemical resistant glove.

○ **Skin protection**

- Wear appropriate chemical resistant protective clothing.

○ **Others**

- Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Liquid
- Color	Not available
B. Odor	Solvent odor
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	23 ℃
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	Not available
N. Specific gravity(Relative density)	Not available
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Cylinders exposed to fire may vent and release flammable gas.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with heat, sparks, flame or other ignition sources.

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

○ **(Respiratory tracts)**

- May be fatal if swallowed and enters airways

○ **(Oral)**

- May harmful if swallowed.

○ **(Eye·Skin)**

- Causes serious eye irritation
- Causes skin irritation

B. Delayed and immediate effects and also chronic effects from short and long term exposure

○ **Acute toxicity**

*** Oral**

- Product (ATEmix) : 2000mg/kg < ATEmix <= 5000mg/kg
- [Xylene] : LD50=3523 mg/kg rat (EU Method B1)
- [Barium sulfate, natural] : LD50 > 3000 ㎎/㎏ Rat (IUCLID)
- [Aluminium] : LD50 > 15900 ㎎/㎏ Rat (OECD TG 401)
- [Ethylbenzene] : LD50 = 3500 ㎎/㎏ Rat (NITE)
- [Toluene] : LD50 5580 ㎎/㎏ Rat (EU Method B.1)
- [Solvent naphtha (petroleum), medium aliph.] : LD50 > 5000 ㎎/㎏ Rat (OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), GLP, ECHA)
- [Solvent naphtha (petroleum), light arom.] : LD50 = 8400 ㎎/㎏ Rat (RTECS)
- [Secret] : LD50 > 5000 ㎎/㎏ Rat (SIDS)
- [Talc, non-asbestos form] : LD50 >5,000 mg/kg rat (GLP, ECHA)
- [Secret] : LD50 = 4600 ㎎/㎏ Rat (HSDB)
- [Secret] : LD50 = 3430 ㎎/㎏ rabbit (GLP, ECHA)
- [Secret] : LD50 = 2460 ㎎/㎏ Rat (HSDB; SIDS; EHC; PATTY)

*** Dermal**

- Product (ATEmix) : >5000mg/kg
- [Xylene] : LD50 >4350 ㎎/㎏ Rabbit (IUCLID) LD50 12126 ㎎/㎏ Rabbit (isomer: m-xylene)
- [Ethylbenzene] : LD50 = 15400 ㎎/㎏ Rabbit (NITE)
- [Toluene] : rabbit LD50=12,124 mg/kg (HSDB)
- [Solvent naphtha (petroleum), medium aliph.] : LD50 > 2000 ㎎/㎏ Rabbit (OECD Guideline 402 (Acute Dermal Toxicity),GLP, ECHA)
- [Solvent naphtha (petroleum), light arom.] : LD50 > 2000 ㎎/㎏ Rabbit (IUCLID)
- [Talc, non-asbestos form] : LD50 >2,000 mg/kg rat (GLP, ECHA)
- [Secret] : LD50 > 5000 ㎎/㎏ Rabbit (NLM: ChemIDPlus)
- [Secret] : LD50 = 3400 ㎎/㎏ rabbit (HSDB)
- [Secret] : LD50 = 2460 ㎎/㎏ Rabbit (SIDS)

*** Inhalation**

- Product (ATEmix) : 20.0mg/L < ATEmix <= 50.0mg/L
- [Xylene] : LC50 5922 ppm 4 hr Rat (25.713 mg/L EPA OPP 81-3, GLP)
- [Aluminium] : Dust LC50 > 0.888 ㎎/ℓ 4 hr Rat (OECD TG 403, GLP)
- [Ethylbenzene] : LC50 = 17.4 mg/L/4 hr Rat (4000 ppm/4hr)(EHC, ASTDR)
- [Toluene] : LC50 >20 ㎎/ℓ Rat (OECD TG 403) (ECHA)

- [Solvent naphtha (petroleum), medium aliph.] : Mist LC50 > 4.3 ㎎/㎥ 4 hr Rat (OECD Guideline 403 (Acute Inhalation Toxicity),GLP)

- [Solvent naphtha (petroleum), light arom.] : LC50 > 5.2 mg/L 4 hr Rat, LC50=3400 ppm 4hr (IUCLID)

- [Secret] : LC50 > 12.6 ㎎/ℓ 4 hr Rat (GLP, IUCLID)

- [Talc, non-asbestos form] : LC50 >2.1 mg/L/4hr Rat, Magnesium hydroxide (GLP, ECHA)

- [Secret] : Steam LC50 = 24.25 mg/L/4 hr Rat (HSDB)
- [Secret] : gas (Not applicable: Solid)
- [Secret] : LC50 = 19.2 ㎎/ℓ 4 hr Rat (conversion of 6336ppm) (OECD SIDS; EHC 65)

○ **Skin corrosion/irritation**

- Causes skin irritation

○ **Serious eye damage/irritation**

- Causes serious eye irritation

○ **Respiratory sensitization**

- Not available

○ **Skin sensitization**

- Not available

○ **Carcinogenicity**

*** IARC**

- [Talc, non-asbestos form] : Group 2B (Talc-based body powder (perineal use of))
- [Ethylbenzene] : Group 2B

- [Quartz (SiO2)] : Group 1 (Silica dust, crystalline, in the form of quartz or cristobalite)

- [Quartz (SiO2)] : Group 1 (Silica, crystalline-a quartz and cristobalite)

- [Talc, non-asbestos form] : Group 3 (Talc not containing asbestos or asbestiform fibres)

- [Toluene] : Group 3

*** OSHA**

- Not available

*** ACGIH**

- [Aluminium] : A4 (Aluminum metal and isoluble compounds)
- [Ethylbenzene] : A3

- [Quartz (SiO2)] : A2 (Silica dust, crystalline, in the form of quartz or cristobalite)

- [Quartz (SiO2)] : A2 (Silica, crystalline-a quartz and cristobalite)
- [Talc, non-asbestos form] : A4 (Talc(containing no asbestos fibers))
- [Toluene] : A4
- [Xylene] : A4

*** NTP**

- [Quartz (SiO2)] : K (Silica dust, crystalline, in the form of quartz or cristobalite)

- [Quartz (SiO2)] : K (Silica, crystalline-a quartz and cristobalite)
- [Quartz (SiO2)] : K (Silica, Crystalline (Respirable Size))

*** EU CLP**

- [Solvent naphtha (petroleum), light arom.] : Carc.1B

○ **Germ cell mutagenicity**

- May cause genetic defects

○ **Reproductive toxicity**

- May damage fertility or the unborn child

○ **STOT-single exposure**

- Causes damage to organs(Refer Section SDS 11)
- May cause drowsiness and dizziness.

○ **STOT-repeated exposure**

- Causes damage to organs through prolonged or repeated exposure (Refer Section SDS 11)

- May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)

○ **Aspiration hazard**

- May be fatal if swallowed and enters airways

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

○ **Fish**

- [Xylene] : LC50=3.3mg/L 96 hr (NITE)
- [Ethylbenzene] : LC50 5.1 ㎎/ℓ 96 hr (ECHA)
- [Toluene] : LC50 5.5 ㎎/ℓ 96 hr (ECHA)
- [Solvent naphtha (petroleum), medium aliph.] : LC50 800 ㎎/ℓ 96 hr Salmo gairdneri (IUCLID). LC50 0.14 ㎎/ℓ 96 hr (Estimate)
- [Solvent naphtha (petroleum), light arom.] : LC50 = 9.22 ㎎/ℓ 96 hr Oncorhynchus mykiss (IUCLID)
- [Talc, non-asbestos form] : LC50 100000 ㎎/ℓ 24 hr Brachydanio rerio (IUCLID)
- [Secret] : LC50 1376 ㎎/ℓ 96 hr Pimephales promelas(OECD TG 203, GLP)
- [Secret] : LC50 = 1000 ㎎/ℓ 96 hr

○ **Crustaceans**

- [Barium sulfate, natural] : EC50 32 ㎎/ℓ 48 hr Daphnia magna (ECOTOX)
- [Aluminium] : IUCLID NOEC > 100 ㎎/ℓ 48 hr Daphnia magna
- [Ethylbenzene] : LC50 2.4 ㎎/ℓ ~ 1.8 ㎎/ℓ 48 hr Mysidopsis bahia(EC50 48hr >5.2mg/L, EPA 1985, GLP)
- [Toluene] : EC50 3.78 ㎎/ℓ 48hr (ECHA)
- [Solvent naphtha (petroleum), medium aliph.] : EC50 100 ㎎/ℓ 48 hr Daphnia magna (IUCLID). LC50 0.107 ㎎/ℓ 48 hr (Estimate)
- [Solvent naphtha (petroleum), light arom.] : EC50 = 6.14 ㎎/ℓ 48 hr Daphnia magna (IUCLID)
- [Talc, non-asbestos form] : LC50 = 94983.781 ㎎/ℓ 48 hr
- [Secret] : EC50 = 1983 ㎎/ℓ 48 hr Daphnia magna (ECOTOX)
- [Secret] : EC50 = 1250 ㎎/ℓ 24 hr Daphnia magna (NITE: EHC65, 1987)

○ **Algae**

- [Barium sulfate, natural] : EC50 1890.263 ㎎/ℓ 96 hr (Estimate)
- [Aluminium] : NOEC ≥ 0.052 ㎎/ℓ 72 hr Selenastrum capricornutum (OECD TG 201, GLP)
- [Ethylbenzene] : EC50 3.6 ㎎/ℓ 96 hr (EPA 1985, GLP)
- [Solvent naphtha (petroleum), medium aliph.] : EC50 450 ㎎/ℓ 96 hr Selenastrum capricornutum (IUCLID). EC50 0.277 ㎎/ℓ 96 hr (Estimate)
- [Solvent naphtha (petroleum), light arom.] : EC50 = 19 ㎎/ℓ 72 hr Selenastrum capricornutum (IUCLID)
- [Talc, non-asbestos form] : LC50 = 48545.539 ㎎/ℓ
- [Secret] : EC50 225 ㎎/ℓ 96 hr Selenastrum capricornutum(OECD TG 201, GLP)

B. Persistence and degradability

○ **Persistence**

- [Xylene] : log Kow=3.16 (NITE)
- [Barium sulfate, natural] : log Kow = 0.63
- [Ethylbenzene] : log Kow 3.6 (ECHA)
- [Toluene] : log Kow 2.73 (HSDB)
- [Solvent naphtha (petroleum), medium aliph.] : log Kow 5.25 (Estimate)
- [Solvent naphtha (petroleum), light arom.] : log Kow = 2.1 ~ 6 (IUCLID)
- [Talc, non-asbestos form] : log Kow -1.50 (Estimate)
- [Secret] : log Kow = 8.23 (NLM;ChemIDplus)
- [Secret] : log Kow 1 (OECD TG 117)
- [Secret] : log Kow = 4.47 (Estimate)
- [Secret] : log Kow = 0.8 (ISCS)

○ **Degradability**

- [Solvent naphtha (petroleum), light arom.] : BOD5/COD = 0.43

C. Bioaccumulative potential

○ **Bioaccumulative potential**

- [Barium sulfate, natural] : BCF = 3.162
- [Ethylbenzene] : BCF 1
- [Solvent naphtha (petroleum), medium aliph.] : 39.66 (L/kg wet-wt) (Estimate)
- [Secret] : BCF = 10 (NLM;HSDB)
- [Secret] : BCF = 17.43 (Estimate)

○ **Biodegration**

- [Xylene] : 39 (%) (NITE)
- [Ethylbenzene] : 70-80% 28 day (ISO 14593 CO2, GLP)
- [Toluene] : Readily biodegradable (ECHA)
- [Solvent naphtha (petroleum), medium aliph.] : Biodegradability = 9 (%) 28 day (Aerobic)
- [Secret] : BOD 77% 28days (HSDB)
- [Secret] : 92% 20 days (ECHA)

D. Mobility in soil

- [Xylene] : log Kow = 3.12 (measured) (ortho), 3.2 (measured) (meta), 3.15 (measurements) (p) (5)
- [Secret] : Koc = 869 (Low potential for soil adsorption, Estimates)
- [Secret] : log Kow = 0.8 (1)

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designated waste is mixed, it is difficult to treat separately, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.
- High temperature incinerate
- After taking off organic solvents that are supposed to be recycled, incinerate the rest of them at a high degree.

B. Special precautions for disposal

- The user of this product must dispose by oneself or entrust it to a waste disposer, a person who recycles other's waste or establishes and operates waste disposal facilities.
- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN No. (IMDG)

- 1263

B. Proper shipping name

- PAINT INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER, AND LIQUID LACQUER BASE

C. Hazard Class

- 3

D. IMDG Packing group

- Ⅲ

E. Marine pollutant

- Applicable

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

- Local transport follows in accordance with Dangerous goods Safety Management Law.

- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.

- Air transport(IATA): This product is NOT classified as dangerous for IATA Transport.

- EmS FIRE SCHEDULE : F-E (Non-water-reactive flammable liquids)
- EmS SPILLAGE SCHEDULE : S-E (Flammable liquids, floating on water)

15. REGULATORY INFORMATION

A. National and/or international regulatory information

○ **POPs Management Law**

- Not applicable

○ **Information of EU Classification**

*** Classification**

- [Aluminium] : H261,H250
- [Aluminium] : H261,H228
- [Toluene] : H225,H361d,H304,H373,H315,H336
- [Xylene] : H226,H332,H312,H315
- [Ethylbenzene] : H225,H332
- [Secret] : H226,H302,H335,H315,H318,H336
- [Secret] : H226,H335,H315,H318,H336
- [Solvent naphtha (petroleum), light arom.] : H350,H340,H304
- [Solvent naphtha (petroleum), medium aliph.] : H304

○ **U.S. Federal regulations**

*** OSHA PROCESS SAFETY (29CFR1910.119)**

- Not applicable

*** CERCLA Section 103 (40CFR302.4)**

- [Xylene] : 45.3599 kg 100 lb
- [Ethylbenzene] : 453.599 kg 1000 lb
- [Toluene] : 453.599 kg 1000 lb
- [Secret] : 2267.995 kg 5000 lb

*** EPCRA Section 302 (40CFR355.30)**

- Not applicable

*** EPCRA Section 304 (40CFR355.40)**

- Not applicable

*** EPCRA Section 313 (40CFR372.65)**

- [Xylene] : Applicable
- [Aluminium] : Applicable
- [Ethylbenzene] : Applicable
- [Toluene] : Applicable
- [Secret] : Applicable

○ **Rotterdam Convention listed ingredients**

- Not applicable

○ **Stockholm Convention listed ingredients**

- Not applicable

○ **Montreal Protocol listed ingredients**

- Not applicable

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

- 2013-07-15

C. Revision number and Last date revised

- 5 times, 2019-05-03

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).