SAFETY DATA SHEET

1. IDENTIFICATION

A. Product name

- OT407-9180

B. Recommended use and restriction on use

- General use	: ALKYD FINISH COAT
- 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 (inhalation: vapor) : Category5
- Skin corrosion/irritation : Category2
- Serious eye damage/irritation : Category2A
- Germ cell mutagenicity : Category1B
- Carcinogenicity : Category1B
- Reproductive toxicity : Category1B
- Specific target organ toxicity(Single exposure) : Category2
- Specific target organ toxicity(Repeated exposure) : Category2
- Aspiration hazard : Category1
- Acute aquatic toxicity : Category3
- Chronic aquatic toxicity : Category2

B. GHS label elements

○ **Hazard symbols**

○ **Signal words**

- Danger

○ **Hazard statements**

- H226 Flammable liquid and vapour
- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H333 May be harmful if inhaled.
- H340 May cause genetic defects
- H350 May cause cancer
- H360 May damage fertility or the unborn child
- H371 May cause damage to organs (Refer Section SDS 11)
- H373 May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)
- H402 Harmful 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.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- 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.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P309+P311 If exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
- 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+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(%)
Naphtha (petroleum), hydrodesulfurized heavy	Aliphatic hydrocarbon	64742-82-1	20 ~ 30
Petroleum resins	Neopolymer (petroleum resin)	64742-16-1	20 ~ 30
Linseed oil	Flaxseed oil	8001-26-1	10 ~ 20
Aluminium	Allbri aluminum paste and powder	7429-90-5	10 ~ 20
Xylene	Dimethylbenzene	1330-20-7	1 ~ 10
Tung oil	-	8001-20-5	1 ~ 10
Solvent naphtha (petroleum), medium aliph.	Medium aliphatic solvent naphtha	64742-88-7	1 ~ 10
Solvent naphtha (petroleum), light arom.	Naphtha	64742-95-6	1 ~ 10

Ethylbenzene	Benzene, ethyl-	100-41-4	0 ~ 1
Methyl ethyl ketoxim	2-Butanone oxime	96-29-7	0 ~ 1
Cobalt naphthenates	-	61789-51-3	0 ~ 1
Secret	Secret	자료없음	1 ~ 10

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

- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.

- Avoid inhalation of materials or combustion by-products.
- Do not access if the tank on fire.
- Use appropriate extinguishing measure suitable for surrounding fire.
- 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.
- Remove all sources of ignition.

- 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

- Avoid direct physical contact.

- Since emptied containers retain product residue(vapor, liquid, solid) follow all MSDS and label warnings even after container is emptied.

- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- 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

- Store according to current laws and regulations
- Do not apply any physical shock to container.

- Avoid direct sunlight.
- Please pay attention to incompatibilities materials and conditions to avoid.

- 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**

- [Aluminium] : TWA, 1 mg/m3, Respirable Particulate Matter
- [Xylene] : TWA 100 ppm (434 mg/m3), STEL, 150 ppm (651 mg/m3)
- [Ethylbenzene] : TWA, 20 ppm (87 mg/m3)
- [Secret] : TWA 10 mg/m3, Total particulate mass
- [Secret] : STEL, 1000 ppm (1880 mg/m3)
- [Secret] : TWA, 200 ppm (491 mg/m3), STEL, 400 ppm (984 mg/m3)
- [Secret] : TWA, 20 ppm (82 mg/m3) STEL 75 ppm (307 mg/m3)

○ **OSHA PEL**

- [Aluminium]: 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)
- [Secret]:1000ppm 1900mg/m3
- [Ethylbenzene]:100ppm 435mg/m3
- [Secret]:100ppm 410mg/m3
- [Secret]:400ppm 980mg/m3
- [Xylene]:100ppm 435mg/m3
- [Secret]: 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)

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(Viscous liquid)
- Color	SILVER
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	26 ℃
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	1%/12%
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	> 1(Air=1)
N. Specific gravity(Relative density)	0.963 ~ 1.003
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	210
Q. Decomposition temperature	Not available
R. Viscosity	57 ~ 63KU
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)**

- Not available

○ **(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) : >5000mg/kg
- [Naphtha (petroleum), hydrodesulfurized heavy] : LD50 > 5000 ㎎/㎏ Rat (ECHA)
- [Petroleum resins] : LD50 = 7000 ㎎/㎏ Mammals (Thomson)
- [Aluminium] : LD50 > 15900 ㎎/㎏ Rat (OECD TG 401)
- [Xylene] : LD50=3523 mg/kg rat (EU Method B1)
- [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)
- [Ethylbenzene] : LD50 = 3500 ㎎/㎏ Rat (NITE)
- [Secret] : LD50 = 4600 ㎎/㎏ Rat (HSDB)
- [Secret] : LD50 = 6200 ㎎/㎏ Rat (HSDB)
- [Methyl ethyl ketoxim] : LD50 = 930 ㎎/㎏ Rat (NITE)
- [Cobalt naphthenates] : LD50 = 3900 ㎎/㎏ Rat
- [Secret] : LD50 = 7060 ㎎/㎏ Rat
- [Secret] : LD50 = 4710㎎/㎏ Rat (HSDB) LD50 5840 ㎎/㎏ Rat (OECD TG 401, ECHA)
- [Secret] : LD50 2080 ㎎/㎏ Rat (NITE, ECHA)

*** Dermal**

- Product (ATEmix) : >5000mg/kg
- [Naphtha (petroleum), hydrodesulfurized heavy] : LD50 > 2000 ㎎/㎏ rabbit (ECHA)
- [Xylene] : LD50 >4350 ㎎/㎏ Rabbit (IUCLID) LD50 12126 ㎎/㎏ Rabbit (isomer: m-xylene)
- [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)
- [Ethylbenzene] : LD50 = 15400 ㎎/㎏ Rabbit (NITE)
- [Secret] : LD50 > 5000 ㎎/㎏ Rabbit (NLM: ChemIDPlus)
- [Methyl ethyl ketoxim] : LD50 = 1000-2000 ㎎/㎏ rabbit (HSDB)
- [Secret] : LD50 = 1800 ㎎/㎏
- [Secret] : LD50 = 12870 ㎎/㎏ rabbit (HSDB), LD50 16400 ㎎/㎏ Rabbit (OECD TG402, ECHA)
- [Secret] : LD50 >16,000 ㎎/㎏ rabbit (NITE), LD0≥2000 mg/kg OECD TG402, GLP(ECHA)

*** Inhalation**

- Product (ATEmix) : 20.0mg/L < ATEmix <= 50.0mg/L
- [Naphtha (petroleum), hydrodesulfurized heavy] : LC50 >4.96 mg/L/4hr (ECHA)
- [Aluminium] : Dust LC50 > 0.888 ㎎/ℓ 4 hr Rat (OECD TG 403, GLP)
- [Xylene] : LC50 5922 ppm 4 hr Rat (25.713 mg/L EPA OPP 81-3, GLP)
- [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)
- [Ethylbenzene] : LC50 = 17.4 mg/L/4 hr Rat (4000 ppm/4hr)(EHC, ASTDR)
- [Secret] : LC50 = 59.59 mg/L/4hr Rat (HSDB)
- [Methyl ethyl ketoxim] : LC50 = 20 ㎎/ℓ 4 hr Rat (HSDB)
- [Secret] : Steam LC50 = 34.6 mg/L/4 hr Rat
- [Secret] : LC50 = 72.6 ㎎/ℓ 4 hr Rat (HSDB), LC50 >10000 ppm 6 hr Rat (OECE TG 403, GLP)
- [Secret] : LC50 11.6 ㎎/ℓ 4h Rat (OECD TG 403)(ECHA)

○ **Skin corrosion/irritation**

- Causes skin irritation

○ **Serious eye damage/irritation**

- Causes serious eye irritation

○ **Respiratory sensitization**

- Not available

○ **Skin sensitization**

- Not available

○ **Carcinogenicity**

*** IARC**

- [Secret] : Group 1 (Ethanol in alcoholic beverages)
- [Ethylbenzene] : Group 2B
- [Secret] : Group 2B
- [Secret] : Group 3

*** OSHA**

- Not available

*** ACGIH**

- [Aluminium] : A4 (Aluminum metal and isoluble compounds)
- [Secret] : A3 (Ethanol in alcoholic beverages)
- [Ethylbenzene] : A3
- [Secret] : A3
- [Secret] : A4
- [Xylene] : A4

*** NTP**

- Not available

*** EU CLP**

- [Naphtha (petroleum), hydrodesulfurized heavy] : Carc.1B
- [Solvent naphtha (petroleum), light arom.] : Carc.1B
- [Methyl ethyl ketoxim] : Carc.2

○ **Germ cell mutagenicity**

- May cause genetic defects

○ **Reproductive toxicity**

- May damage fertility or the unborn child

○ **STOT-single exposure**

- May cause damage to organs (Refer Section SDS 11)

○ **STOT-repeated exposure**

- 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)
- [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)
- [Ethylbenzene] : LC50 5.1 ㎎/ℓ 96 hr (ECHA)
- [Secret] : LC50 = 42 ㎎/ℓ 96 hr Oncorhynchus mykiss (ECOTOX)
- [Methyl ethyl ketoxim] : LC50 = 843 ㎎/ℓ 96 hr
- [Secret] : LC50 1.657 ㎎/ℓ 96 hr (Estimate)
- [Cobalt naphthenates] : LC50 = 3.338 ㎎/ℓ 96 hr (Estimate)
- [Secret] : LC50 = 592 ㎎/ℓ 96 hr Leuciscus idus (IUCLID)
- [Secret] : LC50 >100 ㎎/ℓ 96 hr Oryzias latipes (NITE: MOE eco-toxicity tests of chemicals, 1997)
- [Secret] : ECHA LD50 >179 ㎎/ℓ 96 hr Brachydanio rerio(OECD TG 203, GLP)

○ **Crustaceans**

- [Aluminium] : IUCLID NOEC > 100 ㎎/ℓ 48 hr Daphnia magna
- [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)

- [Ethylbenzene] : LC50 2.4 ㎎/ℓ ~ 1.8 ㎎/ℓ 48 hr Mysidopsis bahia(EC50 48hr >5.2mg/L, EPA 1985, GLP)

- [Secret] : EC50 = 2 ㎎/ℓ 48 hr Daphnia magna (ECOTOX)
- [Secret] : LC50 2.091 ㎎/ℓ 48 hr (Estimate)
- [Cobalt naphthenates] : LC50 = 4.096 ㎎/ℓ 48 hr (Estimate)
- [Secret] : LC50 = 372.700 ㎎/ℓ 48 hr (Estimate)
- [Secret] : ECHA LC50 5102 ㎎/ℓ 24 hr Daphnia magna(OECD TG 202)
- [Secret] : ECHA EC50 >200 ㎎/ℓ 48 hr Daphnia magna(OECD TG 202, GLP)

○ **Algae**

- [Aluminium] : NOEC ≥ 0.052 ㎎/ℓ 72 hr Selenastrum capricornutum (OECD TG 201, 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)

- [Ethylbenzene] : EC50 3.6 ㎎/ℓ 96 hr (EPA 1985, GLP)

- [Methyl ethyl ketoxim] : EC50 16 mg/L 72hr Pseudokirchneriella subcapitata (NITE: Test for the Ecological Effect of Chemical Substances (Ministry of the Environment), 2001)

- [Secret] : EC50 1.498 ㎎/ℓ 96 hr (Estimate)
- [Cobalt naphthenates] : EC50 = 2.866 ㎎/ℓ 96 hr (Estimate)
- [Secret] : EC50 = 225.741 ㎎/ℓ 96 hr (Estimate)
- [Secret] : EC50 = 2.2 ㎎/ℓ 96 hr

B. Persistence and degradability

○ **Persistence**

- [Xylene] : log Kow=3.16 (NITE)
- [Solvent naphtha (petroleum), medium aliph.] : log Kow 5.25 (Estimate)
- [Solvent naphtha (petroleum), light arom.] : log Kow = 2.1 ~ 6 (IUCLID)
- [Ethylbenzene] : log Kow 3.6 (ECHA)
- [Secret] : log Kow = 8.23 (NLM;ChemIDplus)
- [Methyl ethyl ketoxim] : log Kow 0.63 (HSDB)
- [Cobalt naphthenates] : log Kow = 3.96 (Akron)
- [Secret] : log Kow = 1.20
- [Secret] : ECHA 1.9 log Kow (OECD TG 117)
- [Secret] : log Kow = 3.39 (Estimate)

○ **Degradability**

- [Solvent naphtha (petroleum), light arom.] : BOD5/COD = 0.43
- [Secret] : BOD5/COD = 0.57 (IUCLID)
- [Secret] : 95% decomposed after 13 days(Zahn-Wellens-Test)

C. Bioaccumulative potential

○ **Bioaccumulative potential**

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

- [Methyl ethyl ketoxim] : BCF = 0.55 ~ 42 ((25℃), Cyprinus carpio(Fish, fresh water), 2mg/l)

- [Secret] : BCF 46.13 (Estimate)
- [Cobalt naphthenates] : BCF = 224.2 (Estimate)
- [Secret] : BCF = 70.79 (Estimate)

○ **Biodegration**

- [Xylene] : 39 (%) (NITE)

- [Solvent naphtha (petroleum), medium aliph.] : Biodegradability = 9 (%) 28 day (Aerobic)

- [Ethylbenzene] : 70-80% 28 day (ISO 14593 CO2, GLP)
- [Secret] : BOD 77% 28days (HSDB)

- [Secret] : Biodegradability = 75 (%) 20 day (Aerobic, Other, Easily decomposed) (IUCLID)

- [Methyl ethyl ketoxim] : Biodegradability = 24.7 (%) 28 day (Aerobic, Activated Sludge)

- [Secret] : ECHA 83% 28 day (OECD TG 301, GLP)

D. Mobility in soil

- [Xylene] : log Kow = 3.12 (measured) (ortho), 3.2 (measured) (meta), 3.15 (measurements) (p) (5)

- [Secret] : Koc = 1
- [Secret] : log koc= 0.03
- [Secret] : ECHA 101.85 Koc (estimate)
- [Secret] : Koc = 184500

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
- [Xylene] : H226,H332,H312,H315
- [Ethylbenzene] : H225,H332
- [Secret] : H225
- [Secret] : H225,H319,H336
- [Secret] : H225,H332,H319,H335
- [Methyl ethyl ketoxim] : H351,H312,H318,H317
- [Naphtha (petroleum), hydrodesulfurized heavy] : H350,H340,H304
- [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
- [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)**

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

- 2013-07-17

C. Revision number and Last date revised

- 4 times, 2019-04-02

D. Other

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