물질안전보건자료
(Material Safety Data Sheet)

Name of the product	500CR(K3)-SB

1. Information about chemicals and companies

A. Product name	500CR(K3)-SB
B. Recommended use of the product and restrictions (	
Recommended use of the product	UV Audible Paint for Bearing
Product usage restrictions	Restrictions on non-recommended use
C. Manufacturer/supplier/distributor information (in case of imports, enter information of domestic suppliers that can be contacted urgently)	
Corporate name	Geumgang Paint Industrial Co., Ltd. CS. Tech Co., Ltd.
Address	454-2 Yongjeon-ri, Gokyeong-myeon, Yeongcheon-si, Gyeongsangbuk-do
Information provision and emergency contact	054-338-7722, 052-261-7263 Kim Geon-cheol

2. Harmful and dangerous

A. Classification of hazards and risks	Metallic corrosive material: classification1 Acute toxicity (intake: dust/mist): classification4 Skin Corrosive/Skin Irritability: Classification Severe eye damage/eye irritation: classification1 Skin Irritability: Classification 1 Specific target organ toxicity (1 exposure): Classification2 Hazardous nature of acute aquatic environment: Classification1 Harmful to chronic aquatic environment: Classification1
B. Warning sign items including precautionary statements	
Picture Text	
Signal word	Danger
Hazardous and hazardous statements	H290 Metal May Be Corrosive H315 Causes skin irritation H317 May cause allergic skin reactions H318 Causes severe eye damage H332 Harmful when inhaled H371 May cause damage to the body (...) H400 Very toxic to aquatic organisms H410 Very toxic to aquatic organisms due to long-term effects
Precautionary statement	
Prevention	P234 Store in original container only. P260 Do not inhale (dust, fume, gas, mist, steam, spray). P261 Avoid inhalation of dust, fume, gas, mist, steam, spray. P264 Wash the handling area thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Handle only outdoors or in well ventilated areas. P272 Do not take contaminated clothing out of the workshop. P273 Do not discharge into the environment. P280 Wear protective gloves, protective clothing, eye protection, and face protection.
Response	P302+P352 Wash with plenty of water/... if it gets on your skin.

Response	P304+P340 When inhaled, move to a place with fresh air and stabilize in a breathable position. P305+P351+P338 If it gets on your eyes, wash it carefully with water for a few minutes. Remove contact lenses if possible. Keep washing. P308+P311 If you are concerned about exposure or exposure, consult a medical institution (doctor). P310 Seek immediate medical attention. P312 If you feel uncomfortable, consult a medical institution. P321 (…) Treat. P332+P313 If skin irritation occurs, seek medical measures and advice. P333+P313 If skin irritation or erythema appears, seek medical attention. P362+P364 Take off contaminated clothing and clean it before using again. P390 Absorb the leak to prevent damage to the substance. P391 Collect the leak.
Storage	P405 Store in a storage area with a lock. P406 Store in an corrosion resistant container (as determined by the manufacturer or administrative agency) since it is a metal corrosive material.
Disposal	P501 Dispose of the container (as specified in the relevant laws and regulations).

3. Name and content of components

Material name	Nomenclature (tolerance)	CAS number	content (%)
TRIMETHYLOPHANE TRICRYLATE	2-ethyl-2 (1-oxoalil)oxy)methyl)-1,3-propanedyl diacrylate diacrylate (2-Ethyl-2-(1-oxoallyloxy)methyl)-1,3-propanediyl diacrylate)	15625-89-5	1 ~ 10
TRIPROPYLENE GLYCOL DIACRYLATE	2-propenic acid, 1-methyl-1,2-etane.This day)vis (oxy(methyl-2,1-etenedyle)) ester(2-propenoic acid,(1-methyl-1,2-ethanediyl)bis(oxy(methyl-2,1-ethanediyl) ester)	42978-66-5	11 ~ 20
Fabutit 705 (FABUTIT 705)	MONOALUMINIUM DIHYDROGEN MONOPHOSPHATE	13530-50-2	1 ~ 10
Bow Stone		14807-96-6	20 ~ 30
TETRAHYDROFURFURYL ACRYLATE	2-propenic acid, (Tetrahydro-2-puranyl) methyl ester (2-PROPENOIC ACID,	2399-48-6	11 ~ 20
ISOBORNYL ACRYLATE	2-propenic acid, 1,7,7-trimethylbyclo (2.2.1) hept-2-day ester,	5888-33-5	11 ~ 20
(1-hydroxycyclohexyl) phenylmethanone	Methanon, (1-hydroxycyclohexyl)Phenyl-(METHANONE),	947-19-3	1 ~ 10
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester		32435-46-4	1 ~ 10

4. First aid measures

A. When you get in the eye,	If it gets on your eyes, wash it carefully with water for a few minutes. Remove contact lenses if possible. Keep washing. Get emergency medical attention.
B. When you come into contact with your skin,	If skin irritation or erythema appears, seek medical advice. Take off your contaminated clothing. For hot substances, soak affected area in large amounts of cold water or wash it off to remove heat. Remove contaminated clothing and shoes and isolate contaminated areas. Wash skin and eyes under running water for at least 20 minutes immediately upon contact with the substance. Prevent the spread of contaminated areas in case of minor skin contact.
C. When you inhale it.	Seek medical attention immediately. Remove excess dust or fume with clean air and take medical measures if you have cough or other symptoms.

D. When you eat.	If you feel exposed or uncomfortable, consult a medical institution (doctor).
D. When you eat.	When eating or inhaling substances, do not use mouth-to-mouth respiration techniques and use appropriate breathing apparatus.
E. Other medical precautions	Let medical personnel be aware of the substance and take protective measures.

5. How to deal with explosions and fires

A. Adequate (inappropriate) digestive medicine

Adequate (inappropriate) digestive medicine	Use alcohol foam, carbon dioxide or water spray when extinguishing this substance. Use dry sand or soil for asphyxiation

B. Specific hazards arising from chemicals

Specific hazards arising from chemicals	May corrode metal
	May cause irritating and highly toxic gases by pyrolysis or combustion during burning
	Containers may explode when heated
	Some may burn but do not ignite easily
	Some may produce flammable hydrogen gas in contact with metals
	Non-inflammatory, the substance itself does not burn, but may decompose during heating, resulting in corrosive/toxic fume

C. Protective equipment and preventive measures to be worn in the event of a fire.

TRIMETHYLOPHANE TRICRYLATE	Rescuers should wear appropriate protective gear.
	Keep a safe distance away from the area and digest it.
	It may be molten and transported, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, fire it at maximum distance or use unmanned fire extinguishing equipment.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
	In the event of a tank fire, use unmanned fire extinguishing equipment for large-scale fires, and if it's impossible, let it burn.
TRIPROPYLENE GLYCOL DIACRYLATE	Rescuers should wear appropriate protective gear.
	Keep a safe distance away from the area and digest it.
	Some of them may be transported at high temperatures, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
Fabutit 705 (FABUTIT 705)	Rescuers should wear appropriate protective gear.
	Keep a safe distance away from the area and digest it.
	It may be molten and transported, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, fire it at maximum distance or use unmanned fire extinguishing equipment.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.

	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
	In the event of a tank fire, use unmanned fire extinguishing equipment for large-scale fires, and if it's impossible, let it burn.
Bow Stone	Rescuers should wear appropriate protective gear.
	Keep a safe distance away from the area and digest it.
	It may be molten and transported, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
Bow Stone	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, fire it at maximum distance or use unmanned fire extinguishing equipment.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
	In the event of a tank fire, use unmanned fire extinguishing equipment for large-scale fires, and if it's impossible, let it burn.
TETRAHYDROFURFURYL ACRYLATE	Keep a safe distance away from the area and digest it.
	Some of them may be transported at high temperatures, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
ISOBORNYL ACRYLATE	Rescuers should wear appropriate protective gear.
	Keep a safe distance away from the area and digest it.
	It may be molten and transported, so be careful.
	Some of them may be transported at high temperatures, so be careful.
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, fire it at maximum distance or use unmanned fire extinguishing equipment.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
	In the event of a tank fire, use unmanned fire extinguishing equipment for large-scale fires, and if it's impossible, let it burn.
(1-hydroxycyclohexyl) phenylmethanone	If it's not dangerous, move the containers from the fire area.
	Some may be transported at high temperatures
	Leaks can cause contamination
	May cause burns to the skin and eyes on contact
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.

	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	If it's not dangerous, move the containers from the fire area.
	Some may be transported at high temperatures
	Leaks can cause contamination
	May cause burns to the skin and eyes on contact
	Dig a ditch to dispose of the fire hydrant, lock it up, and keep the matter from scattering.
	If it's not dangerous, move the containers from the fire area.
	In the event of a tank fire, cool the container with plenty of water even after extinguishing the fire.
	In case of a tank fire, withdraw immediately if there is a high-pitched sound or if the tank discolors.
	In the event of a tank fire, get out of the tank in flames.

6. How to deal with leakage accidents

A. Actions and protective gear required to protect the human body	Avoid inhalation of dust, fume, gas, mist, steam, spray.
	Wipe off any spills immediately and follow the precautions in the protective gear.
	Remove all sources of ignition.
	Stop the leak if it's not dangerous.
A. Actions and protective gear required to protect the human body	Do not touch damaged containers or leaks without proper protective clothing.
	Cover it with plastic sheets to stop the spread.
	Prevent dust formation.
	Pay attention to substances and conditions to avoid
B. Necessary measures to protect the environment	Do not discharge into the environment.
	Prevent entry into waterways, sewers, basements, and confined spaces.
C. Purification or removal method	Absorb the leak to prevent damage to the substance.
	Collect the leak.
	Absorb spills with inert material (e.g., dry sand or soil) and place in chemical waste container.
	Remove air dust and wet it with water to prevent it from scattering.
	Absorb liquids and wash contaminated areas with detergent and water.
	In the event of a large leak, keep it away from the liquid leak and create a ditch.
	Place the leak in a clean, dry container with a clean shovel, close loosely, and move the container away from the leak area.
	In case of powder leakage, cover with a plastic sheet to prevent spread and keep it dry.
	In the event of a small leak, absorb sand, non-flammable substances, and place them in a container.

7. HANDLING AND STORAGE METHOD

A. Safety handling tips.	Avoid inhalation of dust, fume, gas, mist, steam, spray.
	Wash the handling area thoroughly after handling.
	Do not eat, drink, or smoke when using this product.
	Handle only outdoors or in well ventilated areas.
	Do not take contaminated clothing out of the workshop.
	Follow all MSDS/label precautions as the product may remain after the container has been emptied.
	Handle/Save carefully.
	Carefully open the cap before opening.
	Avoid prolonged or continuous skin contact.

	Pay attention to substances and conditions to avoid
	Refer to engineering management and personal protective equipment.
	Watch out for the high temperature.
B. Safe Storage Methods	Store only in the original container.
	Store in a locked storage area.
	Store in an corrosion-resistant container (as determined by the manufacturer or administrative agency) since it is a metal-corrosive material.
	Drain and properly seal the empty drum barrel and immediately return it to the drum regulator or place it properly.

8. Exposure Prevention and Personal Protection

A. Exposure criteria for chemicals, biological exposure criteria, etc.

domestic regulations

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	TWA - 6 mg/m3 SOUFFSTONE
Bow Stone	TWA - 3 mg/m3 SOUFFSTONE (Breathable)
Bow Stone	TWA - 2 mg/m3 Asbestos [no asbestos, less than 1% silicon oxide crystalline (breathable)] However, for asbestos-containing asbestos reference (0.1 pcs/cm3)
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

ACGIH Regulations

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	TWA 1 ㎎/㎥
Bow Stone	STEL
Bow Stone	TWA 2 ㎎/㎥
Bow Stone	ETC
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

Biological exposure criteria

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data

ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Other Exposure Criteria	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	TWA : 6mg/m3 - NIOSH
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
B. Proper engineering management	Use process isolation, local exhaust, or other engineering management to adjust the air level below the exposure standard.
B. Proper engineering management	If dust, fume, or mist is generated during operation, ventilate so that air pollution is kept below the exposure standard.
B. Proper engineering management	For facilities that store or use this material, install washing facilities and safety showers.
C. Personal protective gear	
Respiratory protection	
TRIMETHYLOPHANE TRICRYLATE	Wear respiratory protective gear certified by the Occupational Safety and Health Organization for the physical and chemical properties of the gases/liquids
TRIMETHYLOPHANE TRICRYLATE	"For gas/liquid substances, the following respiratory protection is recommended: - Isolated full-face gas masks (for organic compounds (for acidic gases) or isolated full-face gas masks (for acidic gases) or direct-type full-face gas masks (for acidic gases) or semi-type gas masks (for acidic gases)
TRIMETHYLOPHANE TRICRYLATE	In case of lack of oxygen (<19.5%) wear a transmission mask or self-contained air respirator.
TRIMETHYLOPHANE TRICRYLATE	Wear respiratory protective gear certified by the Occupational Safety and Health Organization for the physical and chemical properties of the gases/liquids exposed.
TRIMETHYLOPHANE TRICRYLATE	"For gas/liquid substances, the following respiratory protection is recommended: - Isolated full-face gas masks (for organic compounds (for acidic gases) or isolated full-face gas masks (for acidic gases) or direct-type full-face gas masks (for acidic gases) or semi-type gas masks (for acidic gases)
TRIMETHYLOPHANE TRICRYLATE	In case of lack of oxygen (<19.5%) wear a transmission mask or self-contained air respirator.
Fabutit 705 (FABUTIT 705)	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization for the physical and chemical properties of the particulate matter exposed.
Fabutit 705 (FABUTIT 705)	"For particulate matter, the following respiratory protection is recommended: - Face-filtered dustproof mask or air-filtered dustproof mask (high-efficiency particulate filter material) or electric fan-attached dustproof mask (filtered material for dust, mist and fume)"
Fabutit 705 (FABUTIT 705)	In case of lack of oxygen (<19.6%), wear a transmission mask or self-contained respirator.
Bow Stone	SOUFFSTONE
Bow Stone	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization according to the physical and chemical characteristics of the exposed substances.
Bow Stone	SOUPSTONE (Breathing)

Bow Stone	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization according to the physical and chemical characteristics of the exposed substances.
Bow Stone	Asbestos [Without asbestos, less than 1% silicon oxide crystals (breathability)] However, for asbestos-containing types, see asbestos (0.1 pcs/cm3)
Bow Stone	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization according to the physical and chemical characteristics of the exposed substances.
TETRAHYDROFURFURYL ACRYLATE	"For gas/liquid substances, the following respiratory protection is recommended: - Isolated full-face gas masks (for organic compounds (for acidic gases) or isolated full-face gas masks (for acidic gases) or direct-type full-face gas masks (for acidic gases) or semi-type gas masks (for acidic gases)
TETRAHYDROFURFURYL ACRYLATE	In case of lack of oxygen (<19.5%) wear a transmission mask or self-contained air respirator.
ISOBORNYL ACRYLATE	Wear respiratory protective gear certified by the Occupational Safety and Health Organization for the physical and chemical properties of the gases/liquids exposed.
ISOBORNYL ACRYLATE	"For gas/liquid substances, the following respiratory protection is recommended: - Isolated full-face gas masks (for organic compounds (for acidic gases) or isolated full-face gas masks (for acidic gases) or direct-type full-face gas masks (for acidic gases) or semi-type gas masks (for acidic gases)
ISOBORNYL ACRYLATE	In case of lack of oxygen (<19.5%) wear a transmission mask or self-contained air respirator.
(1-hydroxycyclohexyl) phenylmethanone	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization for the physical and chemical properties of the particulate matter exposed.
(1-hydroxycyclohexyl) phenylmethanone	"For particulate matter, the following respiratory protection is recommended: - Face-filtered dustproof mask or air-filtered dustproof mask (high-efficiency particulate filter material) or electric fan-attached dustproof mask (filtered material for dust, mist and fume)"
(1-hydroxycyclohexyl) phenylmethanone	In case of lack of oxygen (<19.6%), wear a transmission mask or self-contained respirator.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Wear respiratory protective gear that is certified by the Korea Occupational Safety and Health Organization for the physical and chemical characteristics of the exposed substance.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	-Filtrated dustproof mask or air filtration mask (high efficiency particle filtration) or dustproof mask attached to electric fan (filtration material for dust, mist, fume)
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	"For gases/liquid substances, the following respiratory protection is recommended: - Isolated full-face gas masks (for organic compounds (for acidic gases) or isolated full-face gas masks (for acidic gases) or direct-type full-face gas masks (for acidic gases) or semi-type gas masks (for acidic gases)

9. PHYSICAL CHEMICAL CHARACTERISTICS

A. Appearance	
a personality of a person	Liquid
Color	Black liquid
Smell.	the smell of a monomeric odor
C. Odor threshold	No data
D. pH	No data
E. Melting point/fish point	No data
F. Initial boiling point and boiling point range	No data
G. Print shop	109
Ah. Evaporation rate.	No data
Now. Flammability (solid, gas)	No data
J. Upper/lower limits of the range of prints or explos	No data
C. Vapor pressure	No data
Get in. Solubility.	No data

Par. Steam density	No data
Ha. Weight	No data
You. Natural ignition temperature.	429
More. Decomposition temperature	No data
More. Decomposition temperature	880
More. Decomposition temperature	No data

10. Stability and Reactivity

A. Chemical stability and potential for hazardous rea

TRIMETHYLOPHANE TRICRYLATE	Containers may explode when heated
TRIMETHYLOPHANE TRICRYLATE	Some may burn but do not ignite easily
TRIMETHYLOPHANE TRICRYLATE	Non-inflammatory, the substance itself does not burn, but may decompose during heating, resulting in corrosive/toxic fume
TRIMETHYLOPHANE TRICRYLATE	May cause irritable, corrosive and toxic gases in case of fire
TRIPROPYLENE GLYCOL DIACRYLATE	Containers may explode when heated
TRIPROPYLENE GLYCOL DIACRYLATE	Some may burn but do not ignite easily
TRIPROPYLENE GLYCOL DIACRYLATE	May cause burns to the skin and eyes on contact
TRIPROPYLENE GLYCOL DIACRYLATE	May cause irritable, toxic gases in case of fire
TRIPROPYLENE GLYCOL DIACRYLATE	inhalation of substances may be harmful
TRIPROPYLENE GLYCOL DIACRYLATE	Inhalation of asbestos may damage the lungs
TRIPROPYLENE GLYCOL DIACRYLATE	Some liquids may produce vapors that cause dizziness and suffocation
Fabutit 705 (FABUTIT 705)	Can decompose at high temperatures to produce toxic gases
Fabutit 705 (FABUTIT 705)	Containers may explode when heated
Fabutit 705 (FABUTIT 705)	Some may burn but do not ignite easily
Fabutit 705 (FABUTIT 705)	Non-inflammatory, the substance itself does not burn, but may decompose during heating, resulting in corrosive/toxic fume
Bow Stone	Containers may explode when heated
Bow Stone	Some may burn but do not ignite easily
Bow Stone	Non-inflammatory, the substance itself does not burn, but may decompose during heating, resulting in corrosive/toxic fume
Bow Stone	May cause irritable, corrosive and toxic gases in case of fire
TETRAHYDROFURFURYL ACRYLATE	May corrode metal
TETRAHYDROFURFURYL ACRYLATE	Containers may explode when heated
TETRAHYDROFURFURYL ACRYLATE	Some may burn but do not ignite easily
TETRAHYDROFURFURYL ACRYLATE	May cause burns to the skin and eyes on contact
TETRAHYDROFURFURYL ACRYLATE	May cause irritable, toxic gases in case of fire
TETRAHYDROFURFURYL ACRYLATE	inhalation of substances may be harmful
TETRAHYDROFURFURYL ACRYLATE	Inhalation of asbestos may damage the lungs
TETRAHYDROFURFURYL ACRYLATE	Some liquids may produce vapors that cause dizziness and suffocation

ISOBORNYL ACRYLATE	Containers may explode when heated
ISOBORNYL ACRYLATE	Some may burn but do not ignite easily
ISOBORNYL ACRYLATE	Non-inflammatory, the substance itself does not burn, but may decompose during heating, resulting in corrosive/toxic fume
ISOBORNYL ACRYLATE	May cause irritable, corrosive and toxic gases in case of fire
(1-hydroxycyclohexyl) phenylmethanone	Stable under room temperature and pressure
(1-hydroxycyclohexyl) phenylmethanone	Containers may explode when heated
(1-hydroxycyclohexyl) phenylmethanone	Some may burn but do not ignite easily
(1-hydroxycyclohexyl) phenylmethanone	May cause irritable, toxic gases in case of fire
(1-hydroxycyclohexyl) phenylmethanone	inhalation of substances may be harmful
(1-hydroxycyclohexyl) phenylmethanone	Some liquids may cause dizziness and suffocation.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Stable under room temperature and pressure
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Containers may explode when heated
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Some may burn but do not ignite easily
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	May cause irritable, toxic gases in case of fire
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	inhalation of substances may be harmful
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Some liquids may cause dizziness and suffocation.
B. Conditions to avoid	
TRIMETHYLOPHANE TRICRYLATE	sources of heat, sparks, flames, etc.
TRIPROPYLENE GLYCOL DIACRYLATE	Heat
Fabutit 705 (FABUTIT 705)	sources of heat, sparks, flames, etc.
Bow Stone	sources of heat, sparks, flames, etc.
TETRAHYDROFURFURYL ACRYLATE	Heat
ISOBORNYL ACRYLATE	sources of heat, sparks, flames, etc.
(1-hydroxycyclohexyl) phenylmethanone	sources of heat, sparks, flames, etc.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	sources of heat, sparks, flames, etc.
C. Substances to avoid	
TRIMETHYLOPHANE TRICRYLATE	Flammable substances, reducing substances
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	Flammable substances, reducing substances
Bow Stone	Flammable substances, reducing substances
Bow Stone	Separation group:
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	Flammable substances, reducing substances
(1-hydroxycyclohexyl) phenylmethanone	flammable substances
(1-hydroxycyclohexyl) phenylmethanone	Irritable, toxic gas
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	flammable substances

2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Irritable, toxic gas

D. Hazardous substances produced during disassembly

TRIMETHYLOPHANE TRICRYLATE	May cause irritating and highly toxic gases by pyrolysis or combustion during burning
TRIMETHYLOPHANE TRICRYLATE	Corrosive/toxic fume
TRIPROPYLENE GLYCOL DIACRYLATE	May cause irritating and highly toxic gases by pyrolysis or combustion during burning
TRIPROPYLENE GLYCOL DIACRYLATE	Irritable, toxic gas
Fabutit 705 (FABUTIT 705)	May cause irritating and highly toxic gases by pyrolysis or combustion during burning
Fabutit 705 (FABUTIT 705)	Corrosive/toxic fume
Bow Stone	Corrosive/toxic fume
Bow Stone	Irritable, corrosive, toxic gases
TETRAHYDROFURFURYL ACRYLATE	Irritable, toxic gas
ISOBORNYL ACRYLATE	May cause irritating and highly toxic gases by pyrolysis or combustion during burning
ISOBORNYL ACRYLATE	Corrosive/toxic fume
ISOBORNYL ACRYLATE	Irritable, toxic gas
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyl	No data

11. Information about toxicity

A. Information about likely exposure pathways

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	May cause burns"
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

B. Health Hazard Information

Acute toxicity

epigram

TRIMETHYLOPHANE TRICRYLATE	LD50 5000 mg/kg Rat
TRIMETHYLOPHANE TRICRYLATE	LD50 6200 mg/kg Rat
Fabutit 705 (FABUTIT 705)	LD50 > 2000 mg/kg Rat
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	LD50 > 5000 mg/kg Rat
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	LD50 4890 mg/kg Rat
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

Transdermal construction	
TRIMETHYLOPHANE TRICRYLATE	LD50 5170 ㎎/㎏ Rabbit
TRIPROPYLENE GLYCOL DIACRYLATE	LD50 > 2000 ㎎/㎏ Rabbit
Fabutit 705 (FABUTIT 705)	LD50 > 4640 ㎎/㎏ Rabbit
Bow Stone	LD50 > 2000 ㎎/㎏ Rat
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	LD50 > 5000 ㎎/㎏ Rat
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Inhalation	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	Dust LC50 > 5.1 £/£ 4 hr Rat
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	Mist LC50 > 2.1 £/£ 4 hr Rat
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Skin corrosive or irritability	
TRIMETHYLOPHANE TRICRYLATE	Medium stimulation
TRIPROPYLENE GLYCOL DIACRYLATE	Normal stimulation (rabbit)
Fabutit 705 (FABUTIT 705)	Viability of cells (%): 84.2/100, **자극성 없음**, reconstituted human epidermis model, EU Guideline Testing of Chemicals B46
Bow Stone	relative tissue survival (%): 112.9, no irritation, human, EU Method B.46
TETRAHYDROFURFURYL ACRYLATE	Corrosion agents: skin, eyes
ISOBORNYL ACRYLATE	Rabbit/skin (500 uL): Medium irritability
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Severe eye damage or irritability	
TRIMETHYLOPHANE TRICRYLATE	Medium stimulation
TRIPROPYLENE GLYCOL DIACRYLATE	Severe irritation (rabbit)
Fabutit 705 (FABUTIT 705)	Classification 1 (non-reversible eye damage) GHS classification basis, Bovine, corneal clutter (86.7), OECD TG 437
Bow Stone	No hypersensitivity, Rat, in vivo, male.
Bow Stone	No irritation, Rabbit, corneal clutter (0), iris (0), conjunctival congestion (1.2), conjunctival edema (0.7), OECD TG 405
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	Rabbit/Eye (100 uL): mild irritation
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Respiratory hypersensitivity	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data

Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Dermatotropic	
TRIMETHYLOLPROPANE TRIACRYLATE	Report dermatitis, dermatitis, and irritability in repeated contact
TRIPROPYLENE GLYCOL DIACRYLATE	Skin sensitivity (Guinea Pig)
Fabutit 705 (FABUTIT 705)	Not classified according to GHS criteria (no hypersensitivity), Mouse, Local Lymph node Test (LLNA), GLP, Female, OECD TG 429
Bow Stone	No hypersensitivity, Guineapig, female, OECD TG 406
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Carcinogenic	
Industrial Safety and Health Act	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Ministry of Employment and Labor Notice	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	1A
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
IARC	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	3

TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
OSHA	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
ACGIH	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	A4
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
NTP	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
EU CLP	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data

TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Reproductive cell variational origin	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	Invitro - Regression Testing with Bacteria: Negative (E. coli WP2 uvr A, regardless of metabolic activity), OECD TG 471, EU Method B.13/14, EPA OPPTS 870.5100
Bow Stone	"invivo - Genetic mutation test using mammalian reproductive cells: negative (rat, male), OECD TG 478 In vitro - chromosomal aberrations using mammalian cells: negative (rat pleural mesothelium cells (RPMC), OECD TG 473, EU Method B.10"
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Reproductive toxicity	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	"The results of this study are complicated to interpret due to the effect of aluminum sulfate treatment on fluid consumption. High concentrations of aluminum sulfate can reduce the pH of drinking water, reducing its affinity, and the intake of F0 and F1 females during the three weeks of lactation has also decreased compared to the control group. Therefore, a decrease in food and water consumption during lactation means that the effects observed in the F1 and F2 generations (e.g., long-term weight reduction) may be secondary rather than direct effects of aluminum sulfate consumption. Therefore, the use of these results as independent results is limited, OECD TG 416, GLP Administration of 370 mg/kg bw for 10 days in pregnant mice does not show developmental toxicity, mother body, fetal toxicity NOAEL > 370 mg/kg bw, mouse" "A daily dose of 900 mg of acrobat/kg to pregnant rabbits on 6-18th of pregnancy had no effect on the fetus. No dose-related effects were shown in the reproductive function. NOAEL is considered 900 mg/kg bw/day in the study of reproductive toxicity. Guidelines: equivalent or similar to OECD TG 416, GLP
Bow Stone	NOAEL = 1600 mg/kg bw/day, 1600 mg/kg bw talc in corn oil did not affect reproductive and developmental indicators, mother body, fetal survival, rat, GLP"
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Specific target organ toxicity (1 exposure)	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	Respiratory tract irritation

Fabutit 705 (FABUTIT 705)	"Ophthalmology: bent posture was observed in three animals during the day of administration. No full body signs were observed on the initial processed object. A white liquid present in the stomach was observed in the autopsy of a dead object during the study. No abnormalities were found in the autopsy at the end of the study. (Rat / Female / OECD TG 420 / GLP) Transdermal: No obvious signs of toxicity. Skin irritation/corrosivity observed Suction: Following the end of exposure, an upright posture, saliva secretion, wrinkled fur, severe breathing and breathing noise were observed in all animals. Wrinkled fur, and breathing sounds were recorded on day 2 of the test and lasted until day 10. In addition, slightly to moderate decreased activity was observed in one male after the end of exposure (test 1 day). After that, all animals had no clinical signs. / No macroscopic findings. (Rat / Male / Female / OECD TG 403 / GLP)"
Bow Stone	"Ophthalmology: No clinical signs observed / No special pathological abnormalities found (Rat / Male / OECD TG 423 / GLP) Transdermal: Test items showed slight signs of skin irritation (weak scratches) after a single dose application to one female (n ° 14) on three and four days. The observed clinical signs appeared only on the day of application, which may be due in part to this. Stress caused by application process. These are the following indications: Red nose emissions for one female (n ° 15) at 2, 3 and 4 hours and for three males (n ° 21, 23, 24) at 1, 2, 3 and 4 hours. Diarrhea appears in one male (n ° 21) immediately after 30 minutes and 1 hour. The autopsy showed a change in tissue in the fluid filled colon. This finding was only seen in one animal and was not associated with specific clinical signs, so it is unlikely to be associated with the test item (Rat / Male / Female / OECD TG 402 / GLP). Inhalation: No clinical signs were observed during exposure. After exposure, ocular sepsis and innate expression were observed in two males and one female on the first day alone. (Rat / Male / Female / OECD TG 403 / GLP)"
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	Oral (absorbable): a 90-day oral exposure (expression) of 0.3, 1.0, and 3.0% through the beagle appears in three animals that are abnormally larger and more than those not normally observed in the T-III group of renal systolic. Other calcified microcontractions present in the lumen of the renal segnure tube located in the cortical muscle joint of the kidney and water quality are attributable to the disease occurring normally and have not changed (NOAEL=322.88 mg/kg bw/day), Dog
Bow Stone	"Ophthalmic (chronic): 101 days of oral exposure through rats (cancer/male) with Talc as feed, and NOAEL was 100 mg/kg/day. There were no side effects at the end of general toxicity, and one of the animals treated with gluteal stones showed gastric smooth muscle sarcoma. However, sarcoma, which is not related to glute treatment, is found in the uterus of two animals. No chronic pathological effects associated with oral administration to rats, Rat, OECD TG 452 Inhalation (chronic): Through rats, 7.5 hours a day with a concentration of 10.8 mg talc/m3 of breathable dust for 6 to 12 months, and 5 days a week, the two groups with a treatment period of 6 to 12 months have a high mortality rate. 50% of the animals died during processing in both groups, and exposure to test substances resulted in distinct fibrosis. Lung adenoma detected in 1 of 24 exposed animals, Rat, OECD TG 452"
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data
Aspiration hazard	
TRIMETHYLOPHANE TRICRYLATE	No data

TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

Other Harmful Effects

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	No data

12. Environmental impact

A. Ecotoxicity.

Fish

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	LC50 > 100 ㎎/ℓ 96 hr Oncorhynchus mykiss
Fabutit 705 (FABUTIT 705)	(OECD TG 203, EU Method C.1, Semi-exponential, Fresh Water, GLP)
Bow Stone	LC50 89581.016 ㎎/ℓ 96 hr Fishes species
Bow Stone	(QSAR, Exponential)
TETRAHYDROFURFURYL ACRYLATE	(No data)
ISOBORNYL ACRYLATE	LC50 1.262 ㎎/ℓ 98 hr
(1-hydroxycyclohexyl) phenylmethanone	LC50 58.426 ㎎/ℓ 96 hr
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	LC50 156.693 ㎎/ℓ 96 hr

Crustaceans

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	EC50 88.7 ㎎/ℓ 48 hr Daphnia magna
Fabutit 705 (FABUTIT 705)	NOEC > 160 ㎎/ℓ 48 hr Daphnia magna
Fabutit 705 (FABUTIT 705)	(OECD TG 202; Semi-exponential, Fresh Water, GLP)
Bow Stone	LC50 36812.359 ㎎/ℓ 48 hr Daphnid species
Bow Stone	(QSAR model, QSAR model, 담수)
TETRAHYDROFURFURYL ACRYLATE	(No data)
ISOBORNYL ACRYLATE	LC50 1.495 ㎎/ℓ 48 hr
(1-hydroxycyclohexyl) phenylmethanone	LC50 64.537 ㎎/ℓ 48 hr

2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

bird

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	EC50 > 28 ㎎/ℓ 72 hr Scenedesmus subspicatus
Fabutit 705 (FABUTIT 705)	EC50 > 100 ㎎/ℓ 72 hr Desmodesmus subspicatus
Fabutit 705 (FABUTIT 705)	(EU Method C.3, OECD TG 201, Exponential, Fresh Water, GLP)
Bow Stone	EC50 7202.7 ㎎/ℓ 96 hr Green algae
Bow Stone	(QSAR model, QSAR model, 담수)
TETRAHYDROFURFURYL ACRYLATE	(No data)
ISOBORNYL ACRYLATE	EC50 0.172 ㎎/ℓ 96 hr
(1-hydroxycyclohexyl) phenylmethanone	EC50 41.382 ㎎/ℓ 96 hr
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

B. Residuality and decomposition

Residuality

TRIMETHYLOPHANE TRICRYLATE	log Kow 2.86 (estimated)
TRIPROPYLENE GLYCOL DIACRYLATE	log Kow 2.77
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	01 -9.4 log Kow
Bow Stone	(log Pow, 25℃)
TETRAHYDROFURFURYL ACRYLATE	(NOT APPLICABLE)
ISOBORNYL ACRYLATE	log Kow 4.21
(1-hydroxycyclohexyl) phenylmethanone	log Kow 2.44
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

Decomposable

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	(No data)
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

C. Bio-enriched

Concentration

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	01 215 BCF
Fabutit 705 (FABUTIT 705)	(Number of dimensionless)

Bow Stone	01 3.162 BCF
Bow Stone	(ℓ/㎏)
TETRAHYDROFURFURYL ACRYLATE	(No data)
ISOBORNYL ACRYLATE	BCF 349.1
(1-hydroxycyclohexyl) phenylmethanone	BCF 2.185
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	BCF 0.2828
Biodegradable	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	> 90 (%)
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data
D. Soil dynamic	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data
E. Other harmful effects	
TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyl	No data

13. Precautions for disposal

A. Disposal method	
TRIMETHYLOPHANE TRICRYLATE	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.

TRIPROPYLENE GLYCOL DIACRYLATE	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
Fabutit 705 (FABUTIT 705)	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
Bow Stone	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
TETRAHYDROFURFURYL ACRYLATE	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
ISOBORNYL ACRYLATE	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
(1-hydroxycyclohexyl) phenylmethanone	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Dispose of the contents and containers according to the regulations provided for in the Waste Management Act.

B. Precautions for disposal

TRIMETHYLOPHANE TRICRYLATE	Dispose of the container (in accordance with the relevant laws and regulations).
TRIPROPYLENE GLYCOL DIACRYLATE	Dispose of the container (in accordance with the relevant laws and regulations).
Fabutit 705 (FABUTIT 705)	Dispose of the container (in accordance with the relevant laws and regulations).
Bow Stone	Dispose of the container (in accordance with the relevant laws and regulations).
TETRAHYDROFURFURYL ACRYLATE	Dispose of the container (in accordance with the relevant laws and regulations).
ISOBORNYL ACRYLATE	Dispose of the container (in accordance with the relevant laws and regulations).
(1-hydroxycyclohexyl) phenylmethanone	Dispose of the container (in accordance with the relevant laws and regulations).
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester	Dispose of the container (in accordance with the relevant laws and regulations).

14. Information required for transportation

A. United Nations number (UN No.)	1263
B. Proper shipping name	Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base
C. Risks in transportation	3
D. Courage grade	III

E. Marine pollutants (represented as applicable or non-sugar): per comparison

F. The user needs to know about transportation or transportation.

1) Types of emergency measures in case of fire: Not applicable

2) Types of emergency measures in case of leakage: Not applicable

15. Status of legal regulations

A. Regulations under the Occupational Safety and Hea

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	Hazardous substances subject to management
Fabutit 705 (FABUTIT 705)	Substances subject to special health examination (Diagnosis cycle: 12 months of substances subject to special health examination)
Bow Stone	Prohibited Substances

Bow Stone	Substances subject to measurement of working environment (Measurement cycle: 6 months of materials subject to measurement of working environment)
Bow Stone	Exposure reference setting substance
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

B. Regulations under the Chemical Substances Contro

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	No data
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

C. Regulations under the Dangerous Goods Safety Ma

TRIMETHYLOPHANE TRICRYLATE	4th class 3rd petroleum (non-waterable liquid) 2000£
TRIPROPYLENE GLYCOL DIACRYLATE	4th class 3rd petroleum (non-waterable liquid) 2000£
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	4th class 3rd petroleum (non-waterable liquid) 2000£
ISOBORNYL ACRYLATE	4th class 3rd petroleum (non-waterable liquid) 2000£
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

D. Regulations under the Waste Management Act

TRIMETHYLOPHANE TRICRYLATE	No data
TRIPROPYLENE GLYCOL DIACRYLATE	No data
Fabutit 705 (FABUTIT 705)	No data
Bow Stone	No data
TETRAHYDROFURFURYL ACRYLATE	designated waste
ISOBORNYL ACRYLATE	No data
(1-hydroxycyclohexyl) phenylmethanone	No data
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	No data

E. Other regulations under domestic and foreign law

domestic regulations

Other domestic regulations

TRIMETHYLOPHANE TRICRYLATE	Not Applicable
TRIPROPYLENE GLYCOL DIACRYLATE	Not Applicable
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable

Foreign regulations

US Management Information (OSHA Regulations)

TRIMETHYLOPHANE TRICRYLATE	Not Applicable
TRIPROPYLENE GLYCOL DIACRYLATE	Not Applicable
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable

US Management Information (CERCLA Regulations)

TRIMETHYLOPHANE TRICRYLATE	Not Applicable
TRIPROPYLENE GLYCOL DIACRYLATE	Not Applicable
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable

US Management Information (EPCRA 302 Regulations)

TRIMETHYLOPHANE TRICRYLATE	Not Applicable
TRIPROPYLENE GLYCOL DIACRYLATE	Not Applicable
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable

US Management Information (EPCRA 304 Regulatior

TRIMETHYLOPHANE TRICRYLATE Not Applicable

TRIPROPYLENE GLYCOL DIACRYLATE Not Applicable

Fabutit 705 (FABUTIT 705) Not Applicable

Bow Stone Not Applicable

TETRAHYDROFURFURYL ACRYLATE Not Applicable

ISOBORNYL ACRYLATE Not Applicable

(1-hydroxycyclohexyl) phenylmethanone Not Applicable

2-methyl-2-propenate poppinicobis (oxy-2,1-etanc Not Applicable

US Management Information (EPCRA 313 Regulatior

TRIMETHYLOPHANE TRICRYLATE Not Applicable

TRIPROPYLENE GLYCOL DIACRYLATE Not Applicable

Fabutit 705 (FABUTIT 705) Not Applicable

Bow Stone Not Applicable

TETRAHYDROFURFURYL ACRYLATE Not Applicable

ISOBORNYL ACRYLATE Not Applicable

(1-hydroxycyclohexyl) phenylmethanone Not Applicable

2-methyl-2-propenate poppinicobis (oxy-2,1-etanc Not Applicable

U.S. Management Information (Rotterdam Conventic

TRIMETHYLOPHANE TRICRYLATE Not Applicable

TRIPROPYLENE GLYCOL DIACRYLATE Not Applicable

Fabutit 705 (FABUTIT 705) Not Applicable

Bow Stone Not Applicable

TETRAHYDROFURFURYL ACRYLATE Not Applicable

ISOBORNYL ACRYLATE Not Applicable

(1-hydroxycyclohexyl) phenylmethanone Not Applicable

2-methyl-2-propenate poppinicobis (oxy-2,1-etanc Not Applicable

U.S. Management Information (Stockholm Conventic

TRIMETHYLOPHANE TRICRYLATE Not Applicable

TRIPROPYLENE GLYCOL DIACRYLATE Not Applicable

Fabutit 705 (FABUTIT 705) Not Applicable

TETRAHYDROFURFURYL ACRYLATE Not Applicable

ISOBORNYL ACRYLATE Not Applicable

(1-hydroxycyclohexyl) phenylmethanone Not Applicable

2-methyl-2-propenate poppinicobis (oxy-2,1-etanc Not Applicable

US Management Information (Montreal Emotional Ma Not Applicable

TRIMETHYLOPHANE TRICRYLATE

TRIPROPYLENE GLYCOL DIACRYLATE	Not Applicable
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable
EU Classification Information (Confirmed Classificati	Not Applicable
TRIMETHYLOPHANE TRICRYLATE	
TRIPROPYLENE GLYCOL DIACRYLATE	Xi; R36/38/R43
Fabutit 705 (FABUTIT 705)	Xi; R36/37/38/R43/N; R51-53
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable
EU Classification Information (Risk Statements)	Not Applicable
TRIMETHYLOPHANE TRICRYLATE	
TRIPROPYLENE GLYCOL DIACRYLATE	R36/38, R43
Fabutit 705 (FABUTIT 705)	R36/37/38, R43, R51/53
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etanc	Not Applicable
EU Classification Information (Safety Statement)	Not Applicable
TRIMETHYLOPHANE TRICRYLATE	
TRIPROPYLENE GLYCOL DIACRYLATE	S2, S39
TRIPROPYLENE GLYCOL DIACRYLATE	S2, S24, S37, S61
Fabutit 705 (FABUTIT 705)	Not Applicable
Bow Stone	Not Applicable
TETRAHYDROFURFURYL ACRYLATE	Not Applicable
ISOBORNYL ACRYLATE	Not Applicable
(1-hydroxycyclohexyl) phenylmethanone	Not Applicable
2-methyl-2-propenate poppinicobis (oxy-2,1-etandyl	Not Applicable

16. Other Notes

A. Source of data

TRIMETHYLOPHANE TRICRYLATE

" QSAR

(g. n-octanol/water distribution coefficient (Kow)"

NLM (mer. molecular weight)

RTECS (Oral)

RTECS (percutaneous)

RTECS (skin-corrosive or irritable)

RTECS (severe eye damage or irritability)

RTECS (Skin Irritability)

QSAR (residual)

TRIPROPYLENE GLYCOL DIACRYLATE

IUCLID (Nature)

IUCLID (Bar. Initial Boiling and Boiling Point Range)

IUCLID (company. printing point)

IUCLID (TA. Solubility)

IUCLID (Lower. Weight)

IUCLID(거. n-octanol/water distribution coefficient (Kow)))

RTECS (Oral)

RTECS (percutaneous)

RTECS (skin-corrosive or irritable)

RTECS (severe eye damage or irritability)

IUCLID (Skin Irritability)

RTECS (specific target organ toxicity (1 exposure))

IUCLID (Capsule)

IUCLID (bird)

IUCLID (residual)

IUCLID (biodegradable)

Fabutit 705 (FABUTIT 705)

ECHA (Nature)

ECHA (Color)

GESTIS(라. pH)

ECHA (E. melting point/fish point)

ECHA (Other. Solubility)

GESTIS (wave. steam density)

ECHA (Lower. Weight)

ECHA (Molecular Weight)

ECHA (Eural)

ECHA (Inhalation)

ECHA (skin-corrosive or irritable)

Severe eye damage or irritability (ECHA)

ECHA (Skin Irritability)

ECHA (Growth Cell Variational Origin)

ECHA (Production Toxicity)

ECHA (specific target organ toxicity (1 exposure))

ECHA (Specific Targeted Organ Toxicity (Repeat Exposure)

ECHA (Fish)

ECHA (Capsule)

ECHA (Tidal Current)

ECHA (concentration)

ECHA (nature)|ECHA (melting point/fish point)|ECHA (solubility point)|Chemical book|ECHA (oral volume)|ECHA (absorbability or irritability)|ECHA (severe eye damage or irritation point)|ECHA (severe eye damage or irritation point)|ECHA (septic point)|ECHA (echoose point)|ECHA (echo)|

Bow Stone

HSDB (Nature)

HSDB (Color)

HSDB (B. Smell)

ECHA (E. melting point/fish point)

ECHA (Car. Vapor Pressure)

ECHA (Other. Solubility)

ECHA (wave. steam density)

HSDB (lower. weight)

ECHA. n-octanol/water distribution coefficient (Kow)))

HSDB (mer. molecular weight)

ECHA (Eural)

ECHA (transcutaneous)

ECHA (Inhalation)

ECHA (skin-corrosive or irritable)

Severe eye damage or irritability (ECHA)

ECHA (Skin Irritability)

ECHA (Growth Cell Variational Origin)

ECHA (Production Toxicity)

ECHA (specific target organ toxicity (1 exposure))

ECHA (Specific Targeted Organ Toxicity (Repeat Exposure)

ECHA (Fish)

ECHA (Capsule)

ECHA (Tidal Current)

ECHA (Remainability)

ECHA (concentration)

ICSC|ISC|ISC|ISC|ISC|ISC(melting point/fish point)|ISC|ISC(solubility)|HSAR(n-octanol/water distribution coefficient (Kow)|Chemical book|RTECS(C)|Chemical source stimulation of cell growth

TETRAHYDROFURFURYL ACRYLATE

ISOBORNYL ACRYLATE

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(성상)

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(나. 냄새)

National Institute of Technology and Evaluation (NITE) (http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(bar. range of initial and boiling points)

National Institute of Technology and Evaluation(NITE)(http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(사. 인화점)

National Institute of Technology and Evaluation(NITE)(http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(하. 비중)

Quantitative Structure Activity Relation(QSAR)(거. n-octanol/water distribution coefficient (Kow)))

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(머. 분자량)

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(경구)

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(경피)

Corporate Solution From Thomson Micromedex (http://csi.micromedex.com) (skin irritation or irritability)

Corporate Solution From Thomson Micromedex (http://csi.micromedex.com) (severe eye damage or irritability)

Ecological Structure Activity Relationships(ECOSAR)(어류)

Ecological Structure Activity Relationships(ECOSAR)(갑각류)

Ecological Structure Activity Relationships(ECOSAR)(조류)

Quantitative Structure Activity Relation(QSAR)(잔류성)

Quantitative Structure Activity Relation(QSAR)(농축성)

(1-hydroxycyclohexyl) phenylmethanone

National Institute of Technology and Evaluation(NITE)(http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(마. 녹는점/어는점)

National Institute of Technology and Evaluation (NITE) (http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(bar. range of initial and boiling points)

National Institute of Technology and Evaluation(NITE)(http://www.safe.nite.go.jp/ghs/h18_bunrui.html)(사. 인화점)

Ecological Structure Activity Relationships(ECOSAR)(거. n-octanol/water distribution coefficient (Kow)))

National Library of Medicine(NLM)(http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM) (Mer. Molecular Weight)

Ecological Structure Activity Relationships(ECOSAR)(어류)

Ecological Structure Activity Relationships(ECOSAR)(갑각류)

Ecological Structure Activity Relationships(ECOSAR)(조류)

Ecological Structure Activity Relationships(ECOSAR)(잔류성)

Quantitative Structure Activity Relation(QSAR)(농축성)

2-methyl-2-propenate poppinicobis (oxy-2,1-etandyle) ester

Calculated by molecular weight and the average molecular weight of air (wave. steam density)

ChemIDplus (mer. molecular weight)

Ecological Structure Activity Relationships(ECOSAR)(어류)

Quantitative Structure Activity Relation(QSAR)(농축성)

B. Initial Creation Date	2022-06-28
C. Number of revisions and final revision date	
Number of revisions	One-time
Final revision date	0
D. Other	

" ○ The prepared Material Safety Data Sheet (MSDS) shall be edited and partially modified by referring to the MSDS provided by the Korea Occupational Safety and Health Corporation.
Here's the data."