

SAMHWA PAINTS		<b>MATERIAL SAFETY DATA SHEET</b>	Date of Issue		2020.06.12	
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## 1. CHEMICAL PRODUCT INFORMATION

Product Name	STARBASE MIXING CLEAR SB106	Color	
Application	BASECOAT FOR AUTOMOTIVE REFINISH		
Hazard	Harmful / Flammable Liquid		
Manufacture	SAMHWA PAINTS IND.CO.,LTD.	Telephone NO.	82-31- 499 - 0394
Address	178, Byeolmang-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea	Department	

## 2. HAZARDS IDENTIFICATION

### 1. Classification of the substance

- ① FLAMMABLE LIQUIDS - category 3
- ② EYE DAMAGE/IRRITATION - category 2 (Irritating to eye)
- ③ SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - category 3(respiratory)
- ④ SKIN CORROSION/IRRITATION - category 2(Skin irritant)
- ⑤ SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - category 1
- ⑥ SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - category 1
- ⑦ ASPIRATION HAZARD - category 1
- ⑧ GERM CELL MUTAGENICITY - category 1B
- ⑨ REPRODUCTIVE TOXICITY - category 1A
- ⑩ CARCINOGENICITY - category 1B

### 2. GHS warning label elements, including precautionary statements



① Symbol :

② Signal word : Danger

③ Hazard statements : May damage fertility or the unborn child  
 Causes damage to organs(Specific target organ-stomach, lung, heart) through prolonged or repeated exposure  
 Causes serious eye irritation  
 May cause cancer  
 May cause respiratory irritation  
 Flammable liquid and vapour  
 May cause genetic defects  
 Causes skin irritation  
 (Specific target organ-stomach, lung, heart) Causes damage to organs  
 May be harmful if swallowed and enters airways

④ Precautionary statements :

Prevention- Do not handle until all safety precautions have been read and understood.  
 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/etc/ equipment.  
 Obtain special instructions before use.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Use only outdoors or in a wellventilated area.  
 Keep container tightly closed.  
 Take precautionary measures against static discharge.  
 Do not eat, drink or smoke when using this product.

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④ Precautionary statements :

Prevention- Wash thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Use only non-sparking tools.

Response- Do NOT induce vomiting.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lense, if present and easy to do. Continue rinsing  
Take off contaminated clothing and wash it before reuse.  
IF exposed or concerned: Get medical advice/attention.  
If skin irritation occurs: Get medical advice/attention.  
IF exposed: Call a POISON CENTER or doctor/physician.  
IF ON SKIN: Wash with plenty of soap and water.  
Specific treatment (see on this label).  
In case of fire: Use fire extinguisher for extinction.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If eye irritation persists: Get medical advice/attention.  
IF ON SKIN (or hair):Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Get medical advice/attention if you feel unwell.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Storage- Store in a well-ventilated place. Keep cool.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Disposal- Dispose of contents/container to ralate laws and regulations.

### 3. CHEMICAL COMPOSITION

Chemical Name	CAS NO.	Portion(%)	Remarks
Cellulose acetate butylate	9004-36-8	1 ~ 10%	
Ethene homopolymer, oxidized	68441-17-8	1 ~ 10%	
Acetone	67-64-1	11 ~ 20%	
Solvent naphtha (petroleum), light arom.	64742-95-6	0 ~ 1%	
Ethanol	64-17-5	0 ~ 1%	
Dimethyl carbonate	616-38-6	11 ~ 20%	

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### 3. CHEMICAL COMPOSITION

Chemical Name	CAS NO.	Portion(%)	Remarks
Styrene, n-butyl acrylate, 2-hydroxyethyl acrylate, methacrylic acid copolymer	34407-02-8	1 ~ 10%	
Xylene	1330-20-7	16 ~ 20%	
n-Butyl acetate	123-86-4	11 ~ 20%	
DIACETONE ALCOHOL	123-42-2	1 ~ 10%	
2-Butoxyethanol	111-76-2	0 ~ 1%	
Propylene glycol methyl ether	107-98-2	11 ~ 20%	

### 4. HEALTH HAZARD INFORMATION

1. Eye contact  
Wash off immediately with plenty of water, also under the eyelids, for at least 20 minutes.  
Call a physician immediately.
2. Skin contact  
Remove the contaminated clothes and the skin will be washed with water and soap.  
Do not use solvents.
3. Inhalation  
Move to fresh air and if he/she not breathes perform artificial respiration.  
Consult a physician if necessary.
4. Ingestion  
Do not induce vomiting unless it is indicated by medical personnel.  
Never give anything by oral tract to an unconscious. Get medical attention if symptoms appear.
5. Note to physician  
Very small quantities of the product reached in lungs may be fatale. Ingestion of the product may cause chemical irritation that may diffuse to lungs and cause edema. Check carefully the victim and apply intubations in all ingestion cases for all important amounts.

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### 5. FIRE FIGHTING MEASURES

- Flash point : 28 °C
- Ignition temp : Not determined
- Upper explosion limit / Lower explosion limit : Not determined
- The Fire Service Act : Fourth grade 2nd.Petroleum
- Fire extinguisher : CO<sub>2</sub>, Powder, Halogen Fire extinguisher and Sand etc.
- Fire and explosion Method of extinguishing and equipment:  
Wear suitable protective equipment Use product with caution around heat, sparks, pilot lights, static electricity, and open flame.  
Due to vapor is heavier than air, keep the distance from the ignition source pour into the fresh air.  
Remove promptly flammable material. Put out a fire at once with prepared fire extinguisher.
- Hazardous materials in combustion:  
Could be generated complexed mixture like solid and gas containing CO, SO<sub>2</sub> etc.  
Unidentified organic and inorganic compound.
- Extinguishing method which must not used for safety : Not applicable

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions  
Evacuate useless personnel, isolate the heat and flame sources, ventilate and wet the area if is possible.  
All personnel must be protected against vapours inhalation and against skin and eyes contact.
- Methods for cleaning up  
Absorb with dry earth, sand or other non-combustible material and precede according decontamination regulation.  
Recovered product will be stored in metallic drums with removable lid or metallic containers, which will be sent to incineration.
- Environmental precautions  
Do not let the product to reach water, drain and earth. Prevent the extending in soil.  
Prevent entry into sewers, basements or confined areas; dike if needed

### 7. HANDLING AND STORAGE

- Handling  
Avoid contact with skin or eyes. Use only up well-ventilated areas.  
Avoid breathing vapor. Do not take internally. Take precautionary measures against static is charges.
- Storage  
The product must be kept in original container tightly closed. Store between 5~35°C in dry, well-ventilated place away from source of heat, ignition and direct sunlight.  
Solvent vapours are heavier than air and spread along floors. Vapours may form explosive mixtures. No smoking.
- Other precautions  
Emergency showers and eye wash stations should be readily accessible.  
Adhere to work practice rules established by government regulations

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure limit values

Chemical Name	Cas No	Interior provision	ACGHI
Cellulose acetate butylate	9004-36-8	No data	No data
Ethene homopolymer, oxidized	68441-17-8	No data	No data
Acetone	67-64-1	TWA : 500 ppm 1188 mg/m <sup>3</sup> STEL : 750 ppm 1782 mg/m <sup>3</sup>	TWA 500 ppm
Solvent naphtha (petroleum), light arom.	64742-95-6	No data	No data

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 1. Exposure limit values

Chemical Name	Cas No	Interior provision	ACGHI
Ethanol	64-17-5	TWA : 1000 ppm 1900 mg/m <sup>3</sup>	TWA 1000 ppm
Dimethyl carbonate	616-38-6	No data	No data
Styrene, n-butyl acrylate, 2-hydroxyethyl acrylate, methacrylic acid copolymer	34407-02-8	No data	No data
Xylene	1330-20-7	TWA : 100 ppm 435 mg/m <sup>3</sup> STEL : 150 ppm 655 mg/m <sup>3</sup>	TWA 100 ppm
n-Butyl acetate	123-86-4	TWA : 150 ppm 710 mg/m <sup>3</sup> STEL : 200 ppm 950 mg/m <sup>3</sup>	TWA 150 ppm
DIACETONE ALCOHOL	123-42-2	TWA : 50 ppm 240 mg/m <sup>3</sup>	TWA 50 ppm
2-Butoxyethanol	111-76-2	TWA : 20 ppm 97 mg/m <sup>3</sup>	TWA 20 ppm
Propylene glycol methyl ether	107-98-2	TWA : 100 ppm 360 mg/m <sup>3</sup> STEL : 150 ppm 540 mg/m <sup>3</sup>	TWA 100 ppm

### 2. Environmental exposure control

Technical conditions regarding atmosphere protection. Determination of pollutants emission produced by stationary sources rules.

3. Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

4. Eye protection: Wear eye/face protection such as chemical goggles or face shield

5. Hand protection: For prolonged or repeated contact use solvent protective gloves. Barrier reams may help to protect the exposed areas of hand. However they should not be applied once exposure has occurred. Hand should be washed after contact

6. Skin protection: Personnel should wear protective clothing and antistatic footwear.

7. Additional: Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1. Appearance : milk-white liquid | 8. Oxidising properties : No data   |
| 2. Odor : solvent specific        | 9. Vapor pressure : No data         |
| 3. pH : Not applicable            | 10. Specific gravity : 0.91         |
| 4. Solubility : Water-insoluble   | 11. Partition coefficient : No data |
| 5. Boiling point : No data        | 12. Vapor density : No data         |
| 6. Melting point : No data        | 13. Viscosity(25°C) : 70KU          |
| 7. Explosive properties : No data | 14. Molecular weight : No data      |

## 10. STABILITY AND REACTIVITY

### 1. Chemical stability

The product is stable if is kept in original recipient and according with recommendation.

### 2. Condition to avoid

Avoid all possible sources of heat, electrostatic discharges, ignition(spark or flame).

Avoid storage at temperature higher than 35°C and direct exposure in the sunlight.

### 3. Materials to avoid

Strong oxidative substances, strong acid, and alkaline solutions may give exothermic reactions in contact with this product.

### 4. Hazardous decomposition products

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## 10. STABILITY AND REACTIVITY

Thermo oxidative decomposition gives carbon monoxide, carbon dioxide, nitrogen oxides and a dense smoke, which contain other unidentified decomposition products. If this product is heated up to its decomposition temperature may lead to explosion.

## 11. TOXICOLOGICAL INFORMATION

### 1. Toxicity Information

Chemical Name	LD50.Oral	LD50.Skin	LD50.Inhalation (gas)	LD50.Inhalation (vapour)	LD50.Inhalation (mist)
Cellulose acetate butylate	No data	No data	No data	No data	No data
Ethene homopolymer, oxidized	No data	No data	No data	No data	No data
Acetone	LD50 = 5280 mg/kg Rat (EHC(1990),	LD50 = 12870 mg/kg rabbit	Steam LC50 = 32000 ppm Rat	Steam LC50 = 32000 ppm Rat	Steam LC50 = 32000 ppm Rat
Solvent naphtha (petroleum), light arom.	LD50 = 8400 mg/kg Rat	LD50 > 2000 mg/kg Rabbit	Mist LC50 = 3400 ppm 4 hr Rat	Mist LC50 = 3400 ppm 4 hr Rat	Mist LC50 = 3400 ppm 4 hr Rat
Ethanol	LD50 = 6200 mg/kg Rat	No data	LC50 = 20000 ppm 10 hr Rat	LC50 = 20000 ppm 10 hr Rat	LC50 = 20000 ppm 10 hr Rat
Dimethyl carbonate	LD50 = 13000 mg/kg Rat	LD50 = 5000 mg/kg Rabbit	LC50 = 140 mg/ℓ 4 hr Rat	LC50 = 140 mg/ℓ 4 hr Rat	LC50 = 140 mg/ℓ 4 hr Rat
Styrene, n-butyl acrylate, 2-hydroxyethyl acrylate, methacrylic	No data	No data	No data	No data	No data
Xylene	LD50 4300 mg/kg Rat	LD50 4350 mg/kg Rabbit	LC50 47653 mg/ℓ 4 hr rat	LC50 47653 mg/ℓ 4 hr rat	Steam LC50 6700 ppm 4 hr Rat
n-Butyl acetate	LD50 = 13100 mg/kg Rat	LD50 > 17600 mg/kg Rabbit	LD50 > 21.1 mg/kg Rat	LD50 > 21.1 mg/kg Rat	LD50 > 21.1 mg/kg Rat
DIACETONE ALCOHOL	LD50 = 2520 mg/kg Rat	LD50 = 13630 mg/kg Rabbit	No data	No data	No data
2-Butoxyethanol	LD50 = 1950 mg/kg rat	LD50 = 2270 mg/kg rat	LC50 = 2.39 mg/ℓ 4hr rat	LC50 = 2.39 mg/ℓ 4hr rat	LC50 = 2.39 mg/ℓ 4hr rat
Propylene glycol methyl ether	LD50 > 5000 mg/kg Rat	LD50 = 13000 mg/kg Rabbit	LC50 = 18.2 mg/ℓ 7 hr Rat	LC50 = 18.2 mg/ℓ 7 hr Rat	LC50 = 18.2 mg/ℓ 7 hr Rat

## 12. ECOLOGICAL INFORMATION

### 1. Ecological Information

Chemical Name	LC50.fish	LC50.water fleas	LC50.algae
Cellulose acetate butylate	No data	No data	No data
Ethene homopolymer, oxidized	No data	No data	No data
Acetone	LC50 > 100 mg/ℓ 96 hr	No data	No data
Solvent naphtha (petroleum), light arom.	LC50 = 9.22 mg/ℓ 96 hr	EC50 = 6.14 mg/ℓ 48 hr Daphnia magna	EC50 = 19 mg/ℓ 72 hr
Ethanol	LC50 = 42 mg/ℓ 96 hr	EC50 = 2 mg/ℓ 48 hr Daphnia magna	No data
Dimethyl carbonate	No data	No data	No data
Styrene, n-butyl acrylate, 2-hydroxyethyl acrylate, methacrylic acid copol	No data	No data	No data
Xylene	LC50 3.3 mg/ℓ 96 hr	LC50 190 mg/ℓ 96 hr	No data

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## 12. ECOLOGICAL INFORMATION

### 1. Ecological Information

Chemical Name	LC50.fish	LC50.water fleas	LC50.algae
n-Butyl acetate	LC50 = 62 mg/ℓ 96 hr	LC50 = 32 mg/ℓ 48 hr	No data
DIACETONE ALCOHOL	LC50 = 420 mg/ℓ 96 hr	No data	No data
2-Butoxyethanol	LC50 = 1250 mg/ℓ 96 hr	LC50 = 5.4 mg/ℓ 96 hr	No data
Propylene glycol methyl ether	No data	EC50 > 500 mg/ℓ 48 hr	No data

2. Soil mobility : Not known

3. Persistence and degradability

There is no specific data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where they can affect ground or surface waters.

4. Potential bioaccumulation : Be possible.

## 13. DISPOSAL CONSIDERATION

1. Relevant insurance of legislation

Dispose of in accordance with local regulations

2. Waste removal measures

Waste must be disposed of in accordance with state and local environmental regulations.

3. Direction for the waste disposal

Preferred options for disposal are recycling, incineration with energy recovery, and landfill.

## 14. TRANSPORT INFORMATION

1. Classification by shipping transportation dangerous substance and regulation of storage :

2. Direction for transport

The product must be kept in original container tightly closed and transport at normal temperature.

3. International Maritime Dangerous Goods Code

U.N Number : 1263

Shipping name : Paint

Hazard class : 3

Packing group : 3

4. Marine pollutant : Not Applicable

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

● Ems FIRE SCHEDULE : F-E

● EmS SPILLAGE SCHEDULE : S-E

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### 15.REGULATORY INFORMATION

1. Article of KOREA OCCUPATIONAL SAFETY \_HEALTHY AGENCY : Not determined. Water-insoluble
2. Article of Harmful Chemical Substance : Not applicable
3. Classify of The Fire Service Act : Fourth grade 2nd.Petroleum

### 16.OTHER INFORMATION

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the data of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release is not to be considered a warranty or quality specification

The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

This information is based on technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.