



MATERIAL SAFETY DATA SHEET (MSDS)

GHS(Global Harmonized System) Rev.06 (2015)

SECTION 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1. Product identifier

- A. Trade name : **L-707B**
B. Application of the substance / the mixture : Print binder.

2. Company Identification

- A. Name : Wolsung Vina Co., Ltd.
B. Address : Ong Dong Hamlet, Tan Hiep Ward,
Tan Uyen Dist., Binh Duong Province, VietNam
C. Emergency phone number : +84-650-3655-022
D. Issuer : Wolsung R&D center
E. Date issued : Jan 02, 2017.

SECTION 2. HAZARDS IDENTIFICATION

1. GHS label elements :

The substance is classified and labeled according to the Globally Harmonized System (GHS).

2. Hazard pictograms



GHS07

Acute tox. 4	H302	Harmful if swallowed.
Acute tox. 4	H332	Harmful if inhaled.
Prevention	P264	Wash.... thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P271	Use only outdoors or in a well-ventilated area.
Response	P301+312	IF SWALLOWED : Call a POISON CENTER or doctor/physician if you feel unwell.
	P330	Rinse mouth.
	P304+P340	IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
Disposal	P501	Dispose of contents/container to....

Aquatic Chronic 4	H413	May cause long lasting harmful effects to aquatic life.
Prevention	P273	Avoid release to the environment.
Disposal	P501	Dispose of contents/container to....
NFPA ratings	Health - 1, Flammability - 0, Chemical Reactivity - 0	



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	CONCENTRATION (%)
n-butyl acrylate	141-32-2	32 ~ 33
Methyl methacrylate	80-62-6	5 ~ 6
2-hydroxyethyl methacrylate	868-77-9	1 ~ 1.5
Water	7732-18-5	59 ~ 61

SECTION 4. FIRST AID MEASURES

1. On contact with eyes :
 - A. Rinse immediately with plenty of water at least several minutes.
 - B. Take the advice of an ophthalmologist.
2. On skin contact :
 - A. Wash with water and soap.
 - B. If an inflammation appears alert a physician.
3. If inhaled :
 - A. Remove from exposure area to fresh air immediately.
 - B. Keep warm and at rest.
 - C. Get medical attention immediately.
4. On ingestion :
 - A. Extreme care must be used.
 - B. Lower the head than the hip to prevent aspiration.
 - C. Get medical attention immediately.
5. Note to physician :
 - A. Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

1. Extinguishing media
 - A. Suitable extinguishing media : Sprayed water, dry powder, foam.
 - B. Unsuitable extinguishing media : No data
2. Special hazards arising from the substance or mixture :

No data
3. Special protective actions for fire-fighters :

Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

1. Personal precautions, protective equipment and emergency procedures :
 - A. Use protective personal equipment
2. Environmental precautions
 - A. Keep spills and cleaning runoff out of municipal sewers and open bodies of water
 - B. Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.
3. Methods and materials for containment and cleaning up
 - A. Recovery : Absorb the product by inert material. Recover in a suitable container



- B. Cleaning/Decontamination : After the product has been recovered, rinse the area and materials involved with water
- C. Elimination : Eliminate in accordance with local and national regulations currently in force

SECTION 7. HANDLING AND STORAGE

- 1. Handling
 - A. Precautions for safe handling
 - Avoid contact with eyes, skin and clothing.
 - Wash thoroughly after handling.
 - Keep container tightly closed.
 - Do not breathe vapors, mist or gas.
 - B. Other data :
 - Monomer vapors can be evolved when material is heated during processing operations.
 - See SECTION 8, for types of ventilation required.
- 2. Storage
 - A. Conditions for safe storage, including any incompatibilities
 - Requirements to be met by storerooms and receptacles :
 - Store in a cool location.
 - Information about storage in one common storage facility :
 - Store away from foodstuffs.
 - Further information about storage conditions :
 - Keep container tightly sealed
 - Store in cool, dry conditions in well sealed receptacles.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

- 1. Additional information about design of technical systems : No further data; See section 7
- 2. Control parameters
 - A. Components with limit values that require monitoring at the workplace : Not required.
 - B. Additional information : The lists that were valid during the creation were used as basis.
- 3. Exposure controls
 - A. Personal protective equipment
 - General protective and hygienic measures
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - Breathing equipment
 - Not required
 - Protection of hands



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves :

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material :

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection



Tightly sealed goggles
Safety goggles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

1. Appearance	: White milky liquid
2. Odour	: Product specific
3. Odour threshold	: Not available
4. pH	: 6~8 (at 30 °C)
5. Melting point	: Not available
6. Freezing point	: Not available
7. Boiling point/range	: 100 °C
8. Flash point	: Not available
9. Evaporation rate	: <1 water
10. Flammability (Solid, gas)	: Not available
11. Upper flammability or explosive limits	: Not applicable
12. Lower flammability or explosive limits	: Not applicable
13. Vapor pressure	: 22.5mmHg at 30 °C
14. Vapor density	: Not available
15. Relative density	: 1.00 ~ 1.20
16. Solubility(ies)	: Soluble water
17. Partition coefficient : n-octanol/water	: No data available
18. Auto-ignition temperature	: No data available
19. Decomposition temperature	: No data available
20. Viscosity	: 50 ~ 100 cps at 30 °C

SECTION 10. STABILITY AND REACTIVITY

1. Reactivity	: No decomposition if used according to specifications
2. Chemical stability	: Stable under recommended storage conditions
3. Possibility of hazardous reactions	: No dangerous reactions known
4. Conditions to avoid	: No further relevant information available
5. Incompatible materials	: No further relevant information available
6. Hazardous decomposition products	: No dangerous decomposition products known



SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

1. Acute toxicity :

A. LD/LC50 values that are relevant for classification

i. Butyl Acrylate

Oral LD50 : 900 mg/kg (rat)

Dermal LD50 : 1,800 mg/kg (rabbit)

Inhalation LC50 : 2,730 ppm 4hr (rat)

ii. Methyl Methacrylate

Oral LD50 : 7,900 mg/kg (rat)

Dermal LD50 : 5,000 mg/kg (rabbit)

Inhalation LC50 : 7,093 ppm, 4hr (rat)

iii. 2-Hydroxyethyl Methacrylate

Oral LD50 : 5,050 mg/kg (rat)

Dermal LD50 : >3,000 mg/kg (rabbit)

iv. Water

Oral LD50 : 90,000 mg/kg (rat)

B. Primary irritant effect

On the skin : irritant to skin and mucous membranes.

On the eye : irritating effect.

C. Sensitization: No sensitizing effects known.

D. Additional toxicological information

Carcinogenic categories

IARC (International Agency for Research on Cancer) : Substance is not listed.

NTP (National Toxicology Program) : Substance is not listed.

2. The statement was derived from products of similar composition:

Acute toxicity

LD50/oral/rat: >5000mg/kg (as attach file)

SECTION 12. ECOLOGICAL INFORMATION

1. Toxicity

A. Aquatic toxicity : No further relevant information available.

B. Persistence and degradability : No further relevant information available.

2. Behavior in environmental systems

A. Bioaccumulative potential : No further relevant information available.

B. Mobility in soil : No further relevant information available.

3. Additional ecological information

A. General notes

Water hazard class 1 (Assessment by list) : Slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

4. Results of PBT and vPvB assessment

A. PBT : Not applicable

B. vPvB : Not applicable

C. Other adverse effects: No further relevant information available.



SECTION 13. DISPOSAL CONSIDERATIONS

1. Waste treatment methods :
 - A. Must not be disposed together with household garbage.
 - B. Do not allow product to reach sewage system.
 - C. Send to authorized disposal plants or for incineration under controlled conditions
2. Disposal methods for contaminated
 - A. Reusable after washing
3. Unclean packaging
 - A. Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

1. UN-Number
 - DOT, ADR, ADN, IATA : Non-regulated material
 - IMDG : Non-regulated material
 - : Not regulated
2. UN proper shipping name
 - DOT, ADR, AND, IMDG, IATA : Non-regulated material
3. Transport hazard class(es)
 - DOT, ADR, AND, IMDG, IATA
 - Class : Non-regulated material
4. Packing group
 - DOT, ADR, IMDG, IATA : Non-regulated material
5. Environmental hazards
 - Marine pollutant : No
6. Special precautions for user : Not applicable.
7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

1. SARA
 - A. Section 355 (Extremely hazardous substances) : Substance is not listed.
 - B. Section 313 (Specific toxic chemical listings) : Substance is not listed.
 - C. TSCA (Toxic Substances Control Act) : Substance is not listed.
2. Proposition 65
 - A. Chemical known to cause cancer : Substance is not listed.
 - B. Chemical known to cause reproductive toxicity for females : Substance is not listed.
 - C. Chemical known to cause reproductive toxicity for males : Substance is not listed.
 - D. Chemical known to cause developmental toxicity : Substance is not listed.
3. Carcinogenic categories
 - A. EPA (Environmental Protection Agency) : Substance is not listed.
 - B. TLV (Threshold Limit Value established by ACGIH) : Substance is not listed.



- C. NIOSH-Ca (National Institute for Occupational Safety and Health) : Substance is not listed.
- D. OSHA-Ca (Occupational Safety & Health Administration) : Substance is not listed.
- 4. National regulations : Substance is not listed.
- 5. State Right to know : Substance is not listed.
- 6. Chemical safety assessment : A Chemical Safety Assessment has not been carried out.

SECTION 16. OTHER INFORMATION

- 1. Uses : Auxiliary/finishing for the textile industry.
- 2. Harmonized system (HS) : 39.06.90
- 3. Combined nomenclature ECC (CN) : 39.06.90.90
- 4. Date of preparation / last revision : 20/05/2014 / 1
- 5. Abbreviations and acronyms
 - ADR : Accord europeen sur le transport des marchandises dangereuses par Route.
 - IMDG : International Maritime code for Dangerous Goods.
 - DOT : US Department Of Transportation
 - IATA : International Air Transport Association
 - ACGIH : American Conference of Governmental Industrial Hygienists
 - NFPA : National Fire Protection Association
 - LC50 : Lethal concentration, 50percent
 - LD50 : Lethal dose, 50percent
 - Acute tox. 4 : Acute toxicity, Hazard Category 4
 - Aquatic Chronic 4 : Hazardous to the aquatic environment, Hazard Category 4
- 6. Additional information
 - A. The data in this material safety data sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process. This MSDS has been reviewed to fully comply with the guidance contained in the GHS MSDS standard.
 - B. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.