



# Material Safety Data Sheet

( This MSDS is prepared pursuant to the provision of Article 41 of the Industrial Safety and Health Law. )

## 1. PRODUCT AND COMPANY IDENTIFICATION

A. Product Name : **NP-ENAMEL BASE**

· Product Code : 4005 ENAMEL BASE

B. Recommended use of the chemical and restrictions on use

· Recommended use : Fabric Screen printing inks

· Restrictions on use : no data available

C. Company Details

· Manufacturer/Supplier : Aone Co., Ltd

· Address : 14-4, Woogo-Ri, Kwang Jeok-Myun, Yangju-Si, Kyunggi-Do, Korea

· Telephone Number : +82-31-878-9295/6

· Fax Number : +82-31-878-9207

D. Date Revised : June, 20, 2013

E. MSDS Number : #141

## 2. HAZARDS IDENTIFICATION

A. Hazard/Risk Classification

· Serious eye damage/ eye irritation : Category 2

B. Label elements including precautionary statements

· Symbol :



· Signal Word : Warning

· Hazard/Risk Statement : H319 Causes serious eye irritation.

· Precautionary Statement :

P264 Wash ... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists : Get medical advice/attention.

C. Other Hazard/Risk which are not included in the classification criteria(e.g. dust explosion hazard) :

· NFPA RATINGS (SCALE 0-4) : HEALTH=1, FIRE=1, REACTIVITY=0

### **3. COMPOSITON/ INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Wt(%)
mixed ester	None	-
Poly Vinyl Chloride	9003-22-9	-
Calcium Carbonate	471-34-1	10-20
Synthetic Amorphous Pyrogenic Silica	112945-52-5	1-5

### **4 . FIRST AID MEASURES**

- A. Eyes : Flush with clean, low pressure water for minutes.
- B. Skin : Remove contaminated clothing. Wash skin with soap and water.
- C. Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
- D. Ingestion : In case of excessive ingestion, copious intake of liquids.  
And seek medical attention.
- E. Note to Physician : None

### **5. FIRE FIGHTING MEASURES**

- A. Flash point (°F ) : > 400
- B. Flammable Limits
  - Upper explosion limit : No data available
  - Lower explosion limit : No data available
- C. Auto-ignition temperature : Unknown
- D. Extinguishing media
  - ▶ Carbon dioxide blanket, Water spray, dry powder, foam
- E. Special Fire Fighting Procedures
  - ▶ Fullface Self-contained breathing apparatus(SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- F. Hazardous combustion products
  - ▶ May emit Hydrogen Chloride (HCl) or Carbon Monoxide(CO) under fire condition. Carbon dioxide(CO<sub>2</sub>), Carbon monoxide(CO), Oxides nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible.

### **6. ACCIDENTAL RELEASE MEASURES**

- A. Spills and leaks : Eliminate all sources or ignition.  
Absorb with inert material.  
Dike area to prevent spreading.  
Wear appropriate protective equipment.

Place in appropriate container.

## **7. HANDLING AND STORAGE**

- A. Handling : Avoid smoking, drinking, or eating during use.
  - Handle and open container with care.
  - Avoid breathing vapor.
  - Avoid skin and eye contact.
  - Remove contaminated clothing.
  - Keep away from heat, sparks and open flame.
- B. Storage : Store in a well ventilated area.
  - Store away from incompatible materials.
  - Keep away from excessive heat.
  - Store in a cool, dry area in a closed container.
  - Store at temperatures below 30°C.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- A. Eye : Wear Safety Goggles/Glasses
- B. Skin : Minimize skin contact, gloves recommended.
- C. Respiratory : None known to be needed.
- D. Good ventilation practices recommended.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

- A. Form : liquid
- B. Appearance : Viscous, liquid
- C. Color : Base
- D. Odor : Very faint
- E. Melting point/range : Not applicable
- F. Boiling point(°C) : Solidifies before boiling
- G. Water solubility : Immiscible
- H. Evaporation rate : Not established
- I. Specific gravity ( 20°C) : 1.2`~1.4
- J. Bulk density : Not applicable
- K. Vapor pressure : Not determined
- L. Vapor Density ( Air=1) : > 1
- M. pH : Not applicable
- N. VOC (g/l) : 2-15g/l

## **10. STABILITY AND REACTIVITY**

- A. Stability : Stable
- B. Hazardous Polymerization : Will not occur
- C. Incompatibility ( Materials to Avoid) : None
- D. Conditions to avoid : Keep away from oxidizing agent and open flame.  
Do not over heat.
- E. Hazardous thermal decomposition / combustion products : CO, CO<sub>2</sub> ,HCl

## **11. TOXICOLOGICAL INFORMATION**

- A. Acute oral LD50 : Not available
- B. Acute dermal LD50 : Not available
- C. Acute inhalation LC50 : Not available
- D. Carcinogenicity : This product not listed as a carcinogen by NTP, IARC, or OSHA

## **12. ECOLOGICAL INFORMATION**

- A. Ecotoxicological information : Unknown
- B. Chemical fate information : Unknown

## **13. DISPOSAL CONSIDERATIONS**

When possible recycling is preferred to disposal or incineration.

The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations

## **14. TRANSPORT INFORMATION**

- A. UN No. : No classification
- B. UN proper shipping name : N/A
- C. Transport hazard class : N/A
- D. Packing group (if applicable) : N/A
- E. Marine pollution (yes/no) : N/A
- F. Other International Transportation Regulations
  - Air Transport (IATA-DGR) : Not subject to IATA-DGR regulations.
- G. Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises : N/A

## **15. REGULATORY INFORMATION**

- A. USA
  - TSCA status
    - ▶ All components of these products are on the US TSCA inventory.
  - California Proposition 65

▶ These products are not known to contain any chemicals known to the state of California to cause cancer or birth defects.

- SARA title III Section 302 Extremely Hazardous Substance : None
- SARA (311,312) hazard class : None
- SARA section 313 toxic chemicals : None

B. JAPAN

- Unknown at this time

**16. OTHER INFORMATION**

- These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.