

Revision Date : January 5 2015

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME : POLY BOND E

COMPANY IDENTIFICATION

Company name :NITTA CORPORATION OF AMERICA
Address :7605 Nitta Drive Suwanee, Georgia 30024 USA
Department :TECHNICAL DEPARTMENT
Emergency telephone :+1-800-221-3689

Company name :NITTA CORPORATION (INDUSTRIAL PRODUCTS DIV.)
Address :172,IKEZAWA-CHO, YAMATOKOHRIYAMA-SHI, NARA, 639-1085, JAPAN
Department :PRODUCT DEVELOPMENT DEPARTMENT
Telephone :+81-743-56-5761
Fax :+81-743-56-0718
Emergency telephone :+81-743-56-0581(NARA FACTORY)

2. HAZARD IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

< Ethyl Acetate >

PHYSICAL HAZARDS

- Explosives :Not applicable
- Flammable gases :Not applicable
- Flammable aerosols :Not applicable
- Oxidizing gases :Not applicable
- Gases under pressure :Not applicable
- Flammable liquids :Category 2
- Flammable solids :Not applicable
- Self-reactive substances and mixtures :Not applicable
- Pyrophoric liquids :Not applicable
- Pyrophoric solids :Not applicable
- Self-heating substances and mixtures :Not applicable
- Substances and mixture which, in contact with water, emit flammable gases :Not applicable
- Oxidizing liquids :Not applicable
- Oxidizing solids :Not applicable
- Organic peroxides :Not applicable
- Corrosive to metals :Not applicable

HEALTH HAZARDS

- Acute toxicity (oral) :Not applicable
- Acute toxicity (skin) :Not applicable
- Acute toxicity (inhalation: gas) :Not applicable
- Acute toxicity (inhalation: vapor) :Not applicable
- Acute toxicity (inhalation: dust, mist) :Classification not possible
- Skin corrosion / irritation :Classification not possible

- Serious eye damages / eye irritation :Category 2B
- Respiratory sensitization :Classification not possible
- Skin sensitization :Classification not possible
- Germ cell mutagenicity :Not applicable
- Carcinogenicity :Classification not possible
- Reproductive toxicity :Classification not possible
- Specific target organ toxicity; single exposure :Category 1
Category 3
- Specific target organ toxicity; repeated exposure :Classification not possible
- Aspiration hazard :Classification not possible

ENVIRONMENTAL HAZARDS

- Aquatic toxicity (acute) :Not applicable
- Aquatic toxicity (chronic) :Not applicable

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS

SYMBOL :



SIGNAL WORD

: Danger

HAZARD STATEMENT

: Highly flammable liquid and water
 May be harmful if swallowed
 Causes serious eye irritation

< Chlorobenzene >

PHYSICAL HAZARDS

- Explosives :Not applicable
- Flammable gases :Not applicable
- Flammable aerosols :Not applicable
- Oxidizing gases :Not applicable
- Gases under pressure :Not applicable
- Flammable liquids :Category 3
- Flammable solids :Not applicable
- Self-reactive substances and mixtures :Classification not possible
- Pyrophoric liquids :Not applicable
- Pyrophoric solids :Not applicable
- Self-heating substances and mixtures :Classification not possible
- Substances and mixture which, in contact with water, emit flammable gases :Not applicable
- Oxidizing liquids :Not applicable
- Oxidizing solids :Not applicable
- Organic peroxides :Not applicable
- Corrosive to metals :Classification not possible

HEALTH HAZARDS

- Acute toxicity (oral) :Category 5

- | | |
|---|------------------------------|
| ▪ Acute toxicity (skin) | :Classification not possible |
| ▪ Acute toxicity (inhalation: gas) | :Not applicable |
| ▪ Acute toxicity (inhalation: vapor) | :Category 4 |
| ▪ Acute toxicity (inhalation: dust, mist) | :Classification not possible |
| ▪ Skin corrosion / irritation | :Category 2 |
| ▪ Serious eye damages / eye irritation | :Category 2A |
| ▪ Respiratory sensitization | :Classification not possible |
| ▪ Skin sensitization | :Classification not possible |
| ▪ Germ cell mutagenicity | :Category 2 |
| ▪ Carcinogenicity | :Category 2 |
| ▪ Reproductive toxicity | :Not applicable |
| ▪ Specific target organ toxicity; single exposure | :Category 1
Category 3 |
| ▪ Specific target organ toxicity; repeated exposure | :Category 1
Category 2 |
| ▪ Aspiration hazard | :Category 2 |

ENVIRONMENTAL HAZARDS

- | | |
|------------------------------|-------------|
| ▪ Aquatic toxicity (acute) | :Category 1 |
| ▪ Aquatic toxicity (chronic) | :Category 1 |

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS

SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENT : May be harmful if swallowed
 May be harmful in contact with skin or if inhaled
 Causes skin irritation
 Causes serious eye damage
 May cause an allergic skin reaction
 Cause damage to organs
 (Blood, Central nervous system, Respiratory system, Cardiovascular system)
 Causes damage to organs through prolonged or repeated exposure
 (Thyroid gland)
 Very toxic to aquatic life

PRECAUTIONARY STATEMENTS

【Prevention】

- Wear protective gloves/eye protection/face protection.
- Take precautionary measures against ignition by the static discharge and the spark
- Keep away from heat/sparks/open flames/hot surfaces.
- Keep container tightly closed.

【Response】

- In case of fire : Use dry chemical powder, carbon dioxide, foam, water spray.
- Inhalation : Move to fresh air and keep at rest in a position comfortable for breathing.
- Eyes contact : Rinse cautiously with water for several minutes.
- Skin contact : Rinse skin with water.
- Ingestion : Rinse mouth with water.

【Storage】

- Store in a well-ventilated, cool and dry place.
- Keep away from sources of ignition.

【Disposal】

- Dispose of contents / container to waste in accordance with local / regional / national / international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT DESCRIPTION : Mixture

Ingredients	CAS No.	METI No.	Chemical structure	% by weight
① Thionophosphoric acid-tris-(p-isocyanatophenyl ester)	4151-51-3	(3)-2538	S=P(-O-R-NCO)3 (R:C6H4)	27
② Ethyl Acetate	141-78-6	(2)-726	C4H8O2	71
③ Chlorobenzene	108-90-7	(3)-31	C6H5Cl	2

4. FIRST AID MEASURES

EYES CONTACT

- Rinse cautiously with water for several minutes.
- If eye irritation persists, get medical advice/attention.

SKIN CONTACT

- Take off immediately all contaminated clothing.
- Gently wash with plenty of soap and water.
- Get medical advice.

INHALATION

- Move to fresh air and keep at rest in a position comfortable for breathing.
- Get medical advice/attention if you feel unwell.

INGESTION

- Rinse mouth with water immediately.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

- Dry chemical powder, carbon dioxide, foam, water spray

SPECIAL PROTECTIVE FOR FIRE- FIGHTERS

- Because hazardous gases may be generated during fire-fighting, firefighters have to wear appropriate protective equipment (gloves, glasses, and mask, self-contained breathing apparatus)

6. ACCIDENTAL RELEASE MEASURES

- Use extra personal protective equipment. Keep people away from and upwind of spill/leak.
- Prevent product from entering drain.
- Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container.
- In case of large amount of spillage, contain a spill by bunding.
- Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

HANDLING

- Avoid contact with eyes, inhale the abrasion dust of this product.
- Avoid contact with water
- Take measures to prevent the build up of electrostatic charge.
- Use explosion-proof equipment
- Prevent generation of vapour or mist.

STORAGE

- Store in a well-ventilated, cool and dry place.
- Store away from incompatible materials such as oxidizing agents.
- Keep away from flame..

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients	CONTROL LIMIT ppm(mg/m ³)	OCCUPATIONAL EXPOSURE LIMITS ppm(mg/m ³)		
		JSOH OELs(TWA)	ACGIH	OSHA
① POLY BOND E	TWA STEL	-	N.A. N.A.	N.A. N.A.
② Ethyl acetate	TWA STEL	400/1995	200(720)/2000 N.A.	400/1999 N.A.

Engineering controls

- Install a closed system or local exhaust. Also install safety shower and eye bath..

PERSONAL PROTECTIVE EQUIPMENT

- Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc.
- Impervious gloves.
- Safety goggles.
- impervious protective clothing.
- Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

• General Information	
• Form : Liquid • Color : yellow-brown • Odor : Characteristic	• Specific Density : approx.1.0(20°C) • Vapor density : 3.04(Ethyl acetate) • Vapor pressure : 9700Pa(20°C)
• Boiling Range : 77°C • Melting point : -82.4°C	• Flash point : -1.3°C • Self-igniting : over 464°C
• Flammable/Explosive Limits : Lower 2.2% Upper 11.4%	• Water solubility : in soluble • Other solvents miscible : Ketone, Ester, Many organic solvents

10. STABILITY AND REACTIVITY

- Chemical Stability : Stable under normal temperatures and pressures.
- Possibility of hazardous reactions : No special reactivity has been reported
- Conditions to avoid : Spark, Open flame, Static discharge
- Incompatible materials : Oxidizing agents, Acids, Bases, Reducing agents
- Hazardous Decomposition Products : Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

- Acute Toxicity :
orl-rat LD50: >2500 mg/kg
skn-rat LD50:>5000 mg/kg
ihl-rat LC50: 29.3 – 58,6mg/l/4H(Ethyl acetate)
ihl-rat LC50:13.9 mg/l/6H(chlorobenzene)
- Skin corrosion/irritation : N.A.
- Serious eye damage/irritation : slight irritant
- Germ cell mutagenicity : N.A.
- Carcinogenicity :
IARC = N.A.
NTP = N.A.
- Reproductive toxicity : N.A.
- Additional information :

Thionophosphoric acid-tris-(p-isocyanatophenyl ester) Special properties/effect:

Over-exposure entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity are possible.

Hypersensitivity persons may suffer from these effects even at low isocyanate concentrations.

Prolonged or repeated exposure may cause irritation of skin and eyes.

12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - Fish : N.A.
 - Crustacea : N.A.
 - Algae : N.A.
- Persistence / degradability : N.A.

13. DISPOSAL CONSIDERATIONS

- Dispose in accordance with local / regional / national / international regulations.

14. TRANSPORT INFORMATION

- Land : Transport in accordance with your country and regions regulations.
- Sea :Transport in accordance with IMDG Code.
- Air :Transport in accordance with ICAO-TI/IATA-DGR.
- UN number :1173
- Hazard class :3: Flammable liquid

15. REGULATORY INFORMATION

- Observe the law or regulations of your country about this material.

16. OTHER INFORMATION

The information contained herein is furnished based on various literatures currently available, but may not cover all the facts. It is likely to be revised by a new finding.

It is therefore requested to handle with adequate care.

Close attention is necessary for handling because there is an unknown hazardous property in all chemicals. In user's responsibility, please set safe use conditions.