

SAFETY DATA SHEET

ASA XC-900G

Date of issue: 2013-06-13

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Version: R0005.0001

1. IDENTIFICATION

A. Product name

- ASA XC-900G

B. Recommended use and restriction on use

- General use : Not available
 - Restriction on use : Not available

C. Manufacturer / Supplier / Distributor information

○ Manufacturer information

- Company name : Kumho Petrochemical, Ulsan Resin Factory
 - Address : 260-257 (Sungam-dong), Cheoyong-ro, Nam-gu, Ulsan-si, Korea
 - Dept. :
 - Telephone number : +82-52-279-8852
 - Emergency telephone number : +82-52-279-8852
 - Fax number : +82-52-279-8840
 - E-mail address :

○ Supplier/Distributor information

- Company name :
 - Address :
 - Dept. :
 - Telephone number :
 - Emergency telephone number :
 - Fax number :
 - E-mail address :

2. HAZARD IDENTIFICATION

A. GHS Classification

- Not applicable

B. GHS label elements

- Hazard symbols
 - Not applicable
- Signal words
 - Not applicable
- Hazard statements
 - Not applicable
- Precautionary statements
 - 1) Prevention
 - Not applicable
 - 2) Response
 - Not applicable
 - 3) Storage
 - Not applicable
 - 4) Disposal
 - Not applicable

C. Other hazards which do not result in classification : (NFPA Classification)

- NFPA grade (0 ~ 4 level)
 - Health : 0, Flammability : 0, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	-	26299-47-8	10-60
polycarbonate	-	24836-68-3	40-90
Triphenylphosphate	Phenyl phosphate ((Pho)3Po)	115-86-6	1-5
Antioxidant	-	-	0-1

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15minutes and call a doctor/physician.

B. Skin contact

- Flush skin with plenty of wter for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.

D. Ingestion contact

- About whether I should induce vomiting Take the advice of a doctor.
- Rinse your mouth with water immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Move containers from fire area, if you can do without the risk.
- Using a unattended and water devices in case of large fire and leave alone to burn if you do not imperative.
- Avoid inhalation of materials or combustion by-products.
- Use appropriate extinguishing measure suitable for surrounding fire.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Ventilate closed spaces before entering.
- Must work against the wind, let the upwind people to evacuate.

- Do not touch spilled material. Stop leak if you can do it without risk.
- Remove all sources of ignition.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Comply with all applicable laws and regulations for handling
- Get the manual before use.
- Refer to Engineering controls and personal protective equipment.

B. Conditions for safe storage, including any incompatibilities

- Keep in the original container.
- Please pay attention to incompatibilities materials and conditions to avoid.
- Keep sealed when not in use.
- No open fire.
- Prevent static electricity and keep away from combustible materials or heat sources.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- o ACGIH TLV
 - [Triphenylphosphate] : TWA 3 mg/m3

B. Engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

C. Personal protective equipment

- o **Respiratory protection**
 - Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
 - Respiratory protection is ranked in order from minimum to maximum.
 - Consider warning properties before use.
- o **Eye protection**
 - Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
 - Provide an emergency eye wash station and quick drench shower in the immediate work area.
- o **Hand protection**
 - Wear appropriate glove.
- o **Skin protection**
 - Wear appropriate clothing.
- o **Others**
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Pellet
- Color	Not available

B. Odor	Odorless
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	220-260 °C
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	Not available
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not available
L. Solubility	Insoluble in water
M. Vapour density	Not available
N. Specific gravity	1.13-1.20
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- (Respiratory tracts)
 - Not available
- (Oral)
 - Not available
- (Eye·Skin)
 - Not available

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- Acute toxicity
 - * Oral
 - [2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile] : LD50 > 5000 mg/kg Rat
 - [Triphenylphosphate] : LD50 3723.1 mg/kg Rat
 - * Dermal
 - [2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile] : LD50 > 2000 mg/kg Rabbit
 - [Triphenylphosphate] : LD50 > 7900 mg/kg Rabbit
 - * Inhalation
 - Not available
- Skin corrosion/irritation

- Not available
- **Serious eye damage/irritation**
 - Not available
- **Respiratory sensitization**
 - Not available
- **Skin sensitization**
 - Not available
- **Carcinogenicity**
 - * **IARC**
 - Not available
 - * **OSHA**
 - Not available
 - * **ACGIH**
 - [Triphenylphosphate] : A4
 - * **NTP**
 - Not available
 - * **EU CLP**
 - Not available
- **Germ cell mutagenicity**
 - Not available
- **Reproductive toxicity**
 - Not available
- **STOT-single exposure**
 - Not available
- **STOT-repeated exposure**
 - Not available
- **Aspiration hazard**
 - Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- **Fish**
 - [Triphenylphosphate] : LC50 0.3 mg/l 96 hr
- **Crustaceans**
 - [Triphenylphosphate] : LC50 0.18 ~ 0.32 mg/l 96 hr
- **Algae**
 - Not available

B. Persistence and degradability

- **Persistence**
 - [2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile] : (Not applicable)
- **Degradability**
 - Not available

C. Bioaccumulative potential

- **Bioaccumulative potential**
 - [Triphenylphosphate] : BCF 43 112 ((Lemna minor; Typha sp., 60ug/l))
- **Biodegradation**
 - [Triphenylphosphate] : 90 (%)

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.

B. Special precautions for disposal

- The user of this product must disposal by oneself or entrust to waste disposer or person who other's waste recycle and dispose, person who establish and operate waste disposal facilities.
- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION**A. UN No. (IMDG)**

- Not available

B. Proper shipping name

- Not available

C. Hazard Class

- Not available

D. IMDG Packing group

- Not available

E. Marine pollutant

- Not applicable

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

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION**A. National and/or international regulatory information**

- POPs Management Law
 - Not applicable
- Information of EU Classification
 - * Classification
 - Not applicable
 - * Risk Phrases
 - Not applicable
 - * Safety Phrase
 - Not applicable
- U.S. Federal regulations
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - Not applicable
 - * CERCLA Section 103 (40CFR302.4)
 - Not applicable
 - * EPCRA Section 302 (40CFR355.30)
 - Not applicable
 - * EPCRA Section 304 (40CFR355.40)
 - Not applicable
 - * EPCRA Section 313 (40CFR372.65)
 - Not applicable
- Rotterdam Convention listed ingredients
 - Not applicable

- **Stockholm Convention listed ingredients**
 - Not applicable
- **Montreal Protocol listed ingredients**
 - Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2013-06-13

C. Revision number and Last date revised

- 4th 2018. 07. 18

D. Other

- This MSDS is prepared according to the Globally Harmonized System (GHS).