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|  | **Safety Data Sheet (SDS)** | Date of Issue: 2015. 12. 12 |
| Revision Date: 2016. 03. 04 |
| **Advanced ABS (AABS)** |  |

**1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION**

**Product (Trade) Name: Advanced ABS (AABS)**

**Company Identification: TLC KOREA Co. Ltd.**

74 Makgol-gil, Hojeo-Myeon,

 Wonju City, Gangwon-Do, Korea

Post Code: 220-926

**Emergency Telephone & Fax Numbers:** Tel: +82-33-732-9157

Fax: +82-33-732-9158

**2. COMPOSITION / INFORMATION ON INGREDIENT**

**2-1 COMMON CHEMICAL NAME: ABS**

 **2-2 Mixtures**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **CAS No.** | **REACH No.** | **%(weight)** |
| **2-Propenenitril polymer with 1.3-Butadiene** **and ethenylbenzene** | **9003-56-9** | **-** | **90~100** |
| **Secret** | **Secret** | **-** | **1~10** |

**3. HAZARDS IDENTIFICATION, INCLUDING EMERGENCY OVERVIEW**

**Skin Contact**

* No evidence of harmful effects from available information

**Skin Absorption**

* No evidence of harmful effects from available information

**Eye Contact**

* No evidence of harmful effects from available information

**Inhalation**

* Short-term harmful health effects are not expected from vapor generated at ambient temperature

**4. FIRST AID MEASURES**

**Eye Contact**

* Flush eyes thoroughly with water for at least 15 minutes and remove contact lenses if worn.

**Skin Contact**

* Flush skin with plenty of water for at least 15 minutes while removingcontaminated clothing and shoes

**Inhalation**

* Move to fresh air when exposed to large amounts of steam and mist

**Ingestion**

* Rinse mouth with water immediately and take advice of a doctor/physician

**5. FIRE FIGHTING MEASURES**

**Fire Fighting Guidance**

* Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire
* Move containers from fire area if you can do this without risk
* Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank
* Use appropriate extinguishing measure suitable for surrounding fire
* Keep containers cool with water spray

**Extinguishing Media**

* Suitable: Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
* Unsuitable: Avoid use of water jet for extinguishing

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal Precautions, protective equipment and emergency procedures**

**6.1.1. For non-emergency personnel**

* Protective equipment: Wear proper protective equipment
* Emergency procedures: Not applicable
* If required, notify relevant authorities according to applicable regulations

**6.1.2. For emergency responders**

* Do not touch spilled material. Stop leak if you can do it without risk
* Remove all sources of ignition
* Handling the damaged containers or spilled material after wearing protective equipment

**6.1.3. Other information**

* Notification to central or local government when emission at least of the standard amount
* Slippery when spilt

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

* Since emptied containers retain product residue (vapor, liquid, solid) follow all MSDS warnings even after container is emptied
* Refer to Engineering controls and personal protective equipment
* Dealing only in a well-ventilated place
* Operators should wear antistatic footwear and clothing
* Wash thoroughly after handling

**7.2 Safe storage and incompatibilities**

* Check regularly for leaks
* Prevent static electricity and keep away from combustible materials or heat sources
* Store in a dry/cool place

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

**8.1 Exposure 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.

**8.2 Individual protection measures, such as personal protective equipment**

**Hand Protection**

* Wear appropriate gloves

**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

**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
* Dust, mist, fume-purifying respiratory protection
* Any air-purifying respirator with a corpuscle filter of high efficiency
* Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
* Self-contained breathing apparatus with a corpuscle filter of high efficiency

**Skin Protection**

* Wear appropriate clothing

**9. PHYSICAL and CHEMICAL PROPERTIES**

**Appearance (State):** Solid (Pellets)

**Appearance (Color):** Slightly yellow

**Odor:** Not available

**Freezing Point:** Not determined

**Relative Density:** 1.02~1.08g/㎖

**Melting Point:** 210~240℃

**Flashy Point:**  Not available

**Solubility:** Not available

**10. STABILITY AND REACTIVITY**

**Reactivity:** Not available

**Chemical Stability:** Stable under recommended storage and handling conditions

**Hazardous Reactions:** Hazardous polymerization will not occur

**Conditions to avoid:**

* Avoid contact with incompatible material and condition
* Avoid accumulation of electrostatic charges, heating, flames and hot surfaces

**11. TOXICOLOGICAL INFORMATION**

**11-1 Acute toxicity**

**Oral**

* Not available

**Dermal**

* Not available

**Inhalation**

* Not available

**11-2 Eye corrosion/irritation**

* Not available

**11-3 Skin sensitization**

* Not available

**11-4 Mutagenicity**

* Not available

**11-5 Reproductive toxicity**

* Not available

**11-6 Aspiration hazard**

* Not available

**11-7 Carcinogenicity**

* Not available

**11-8 Respiratory sensitization**

* Not available

**12. ECOLOGICAL INFORMATION**

**12-1 Fish**

* (2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene):

LC50 11.5mg/ℓ 96hr Primephales promelas

* Not available

**12-2 Invertebrate**

* Not available

**12-3 Algae**

* Not available

12-4 **Bioaccumulative potential**

**Bioaccumulation**

* Not available

**Biodegradability**

* Not available

**13. DISPOSAL CONSIDERATIONS**

**13-1 WASTE DISPOSAL METHOD**

* Since more than two kinds of designated waste is mixed, it is difficult to treat separately, 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
* The user of this product must dispose by oneself or entrust to waste disposer or person, who recycle and dispose other’s waste, person, who establish and operate waste disposal facilities.
* Dispose of waste in accordance with all applicable laws and regulations.

**14. TRANSPORT INFORMATION**

**Land, Sea and Air transport**

* Not-regulated

**15. REGULATORY INFORMATION**

**15-1 Safety, health and environmental regulation / legislation specific for the substance / mixture**

**REACH Restricted substance under REACH**

* Not applicable

**REACH Substances subject to authorization under REACH**

* Not applicable

**REACH SVHC**

* Not applicable

 **Europe PBT**

* Not applicable

**EU classification<Regulation(EC)No 1272/2008 Annex VI Table 3.1>**

* Not applicable

**EU classification<Regulation(EC)No 1272/2008 Annex VI Table 3.2>**

* Not applicable

**Aquatic ecotoxicity(R50/53)**

* Not applicable

**16. OTHER INFORMATION**

* The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered
* This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only
* It should not therefore be construed as guaranteeing any specific property of the product
* When process AABS resin after more than 1 year of storage, re-dry before processing.