

**MATERIAL SAFETY DATA SHEET**

File NO.: 65280-001  
 DENKA TRANSPARENT ABS Natural Color  
 MSDS DATE : 2005/3/8

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

RPRODUCT NAME : DENKA TRANSPARENT ABS (NATURAL COLOR)  
 GRADE NAME : CL, CL-301, CU-301, CL-301-Q, CL-20, CL-430

MANUFACTURER : DENKI KAGAKU KOGYO KABUSIKI KAISYA  
 DIVISION : FUNCTIONAL PLASTIC DIVISION  
 ADDRESS : NIHONBASHI MITSUI TOWER, 1-1 NIHONBASHI-MUROMACHI  
 2-CHOME, CHUO-KU, TOKYO 108-8338 JAPAN

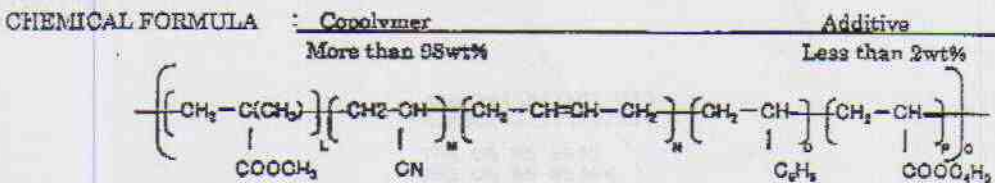
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PRINTED DATE : 2005/3/8

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

COMPOSITION : Methymethacrylate-Acrylonitrile-Butadiene-Styrene-Butylacrylate Copolymer



CAS.No. : 25101-28-4/107592-06-8

**SECTION 3: HAZARDS IDENTIFICATION**

ROUTES OF ENTRY : Inhalation, ingestion, eye and skin contact  
 POTENTIAL HEALTH EFFECTS: No information  
 CARCINOGENIC EFFECTS : No information  
 MUTAGENIC EFFECTS : No information  
 TERATOGENIC EFFECTS : No information  
 EFFECTS ON THE REPRODUCTIVE SYSTEM: No information

**SECTION 4: FIRST AID MEASURES**

EYES : Remove contact lenses stick to eye balls. Immediately flush the affected eyes well with clean water. Do not rub the eyes to prevent corneas injuries. Seek medical attention if irritation persists.



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- SKIN** : Wash well with water. If condensates of gas generated from the substance molten at high temperature, wash well with soapy water. In case of molten plastic contact with skin, cool immediately with water and seek medical attention.
- INGESTION** : Not likely to ingest. If a large amount is swallowed, seek medical attention.
- INHALATION** : Not likely to inhale pellets due to their physical form. If inhale gases and/or fumes from the molten resin at high temperature, leave the place immediately and breathe fresh air. If coughing and/or difficult breath occurs, seek immediate medical attention.

**SECTION5: FIRE FIGHTING MEASURES**

- FIRE FIGHTING** : This product generates intense heat, dense black smoke, carbon dioxide, carbon monoxide, carbon, hydrogen cyanide and so on. Wear fire protective clothing and breathing apparatus for fire fighting.
- EXTINGUISHING MEDIA**: Water pouring, water spray and regular fire extinguishers can be used.
- AUTOIGNITABILITY** : 465°C(ASTM-D 1929-77)
- EXPLOSION LIMIT** : Not available
- Flash Point** : Not available
- SPECIAL FIRE FIGHTING PROCIDURES**: None
- HAZARDOUS DECOMPOSITION PRODUCTS**: The resin generates decomposed gases.

**SECTION6: ACCIDENTAL RELEASE MEASURES**

If spilled on road or floor, sweep and collect materials to prevent slipping and falling. Released materials must be collected for environmental protection.

**SECTION7: HANDLING AND STORAGE**

- HANDLING** : Gases generated during processing the material may cause irritation to the skin and the respiratory organs. If a large amount of the gases is inhaled, it may cause nausea and headache. Refrain from inhaling them. Prevent dust accumulation from cutting and grinding the materials, which may cause a dust explosion by electrostatic charges or electric spark.
- STORAGE** : Store under no direct sunlight and in a dry place avoiding excessive heat and sources of ignition. Prevent electrostatic charges which may cause explosion.

**SECTION8: EXPOSURE CONTROLES/PERSONAL PROTECTION**

- ENGINEERING MEASURES** : Local ventilation system is required for better working environment as gases are generated during the high temperature processing of the materials.
- RESPIRATORY PROTECTION** : Wear respirator during machinery processing or sanding of resin which produces dust. When working under high dense gases and/or fumes circumstances, wear organic gas respirator.



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**EYE PROTECTION** : Wear protective glasses during machinery processing or sanding.**SKIN PROTECTION** : Wear long sleeve clothing when handling molten resin.**OTHER PROTECTIVE EQUIPMENT:** Wear heat-resistant gloves when handling molten resin.**SECTION9: PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE** : Pellets**ODOR** : Odorless**PHYSICAL STATE** : Solid**pH** : Not available**BOILING POINT** : Not available**MELTING POINT** : No definite temperature. Softening in the broad range of temperature between 180-150°C.**SPECIFIC GRAVITY** : 1.09~1.11**SOLUBILITY IN WATER:** Water - Insoluble**SECTION10: STABILITY AND REACTIVITY****FLAMMABILITY** : No information**SOLUBILITY** : Water - Insoluble**OXIDIZABILITY** : Not occur under proper storage condition**SELF-REACTIVITY** : There is no self-reactivity at room temperature.**EXPRESSIVENESS** : At high temperature(250-400°C) decomposed gases are generated from resin decomposition. In this case cool the molten resin with water as soon as possible.**DUST EXPLOSIVES** : Explosive**STABILITY AND REACTIVITY** : None under ordinary condition**SECTION11: TOXICOLOGICAL INFORMATION****SKIN CORROSIVENESS:** None**IRRITABILITY** : Physical irritation is observed(SKIN/EYE)**ACUTE TOXICITY** : Oral LD<sub>50</sub>(rat) > 5g/kg(Assumed value)**SECTION12: ECOLOGICAL INFORMATION**

No data available. Release may cause environmental hazard.

**SECTION13: DISPOSAL CONSIDERATIONS**

Comply with national and/or local regulations.

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**SECTION 14: TRANSPORT INFORMATION**

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Avoid moisture and rough handling which may damage its package. If bag is broken and the materials are spilled, sweep and collect them immediately to prevent slipping and falling.

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**SECTION 15: REGULATORY INFORMATION**

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Comply with national and local regulations.

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**SECTION 16: OTHER INFORMATION**

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This information is based on currently available technical materials and data, and is subject to change due to new experience and knowledge. All guidelines is for ordinary use and not for special application or handling, which requires proper safety measures. This publication is made to provide information only and does not guarantee anything.