

# Safety Data Sheet(SDS)

Last revised date : 26-12-2022

#### 1. Identification

- 1) Product identifier : ABS HG-0760TV
- 2) Recommended use of the chemical and restrictions on use
  - Recommended use of the chemical Others(Synthetic Resin Plastics)
  - Restrictions on use

Use for recommended use only Do not use it for weapons manufacturing and related purposes.

- 3) Details of the supplier of the safety data sheet
  - $\circ \, \text{Seller}$

Company name : Lotte Chemical Corporation

Address : 05551 Lotte World Tower, 300, Olympic-ro, Songpa-gu, Seoul, 05551 Rep. of KOREA

Telephone number :

	Basic Chemicals	+82-2-829-4114	Advanced Materials	+82-31-596-3114	
Eme	Emergency phone number				

Yeosu Plant	+82-61-688-2100	Ulsan Plant	+82-52-278-3500
Daesan Plant	+82-41-689-5900	Yeosu Plant(Advanced Materials)	+82-61-689-1100

Fax number : +82-2-834-6070

### 2. Hazards identification

- 1) Hazard classification
  - Not applicable
- 2) Allocation label elements

Hazard pictograms

- Not applicable

Signal word

- NONE

Hazard statements

- Not applicable

# Precautionary statements

- Not applicable
- 3) Other hazards:

According to experience and information provided, this product does not affect harmful effects when using and handling it as a regulation.

# 3. Composition/Information on ingredients

Chemical name	Common name	CAS No.	Content(wt%)
2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene	ABS Resin	9003-56-9	>=96.5 ~ <=99
N,N'-ethylenedi(stearamide)	N,N'-ethylenedi(stearamide )	110-30-5	>=0.8 ~ <=3
Additives	-		>=0.1 ~ <=2
Octadecyl 3-(3,5-di-t-butyl-4- hydroxy phenyl) propionate	octadecyl 3-(3,5-di-tert-b utyl-4-hydroxyphenyl)propi onate	2082-79-3	>=0.05 ~ <=0.5

# 4. First-aid measures

- 1) Following eye contact
  - Call a physician immediately.
- 2) Following skin contact
  - Get medical attention if irritation develops and persists.
  - Remove contaminated clothing and shoes.
- 3) Following inhalation
  - If symptoms persist, call a physician.
  - Move to fresh air.
- 4) Following ingestion
  - If accidentally swallowed obtain immediate medical attention.
- 5) Delayed and immediate effects and also chronic effects from short and long term exposure
  - No data available
- 6) Advice to physician
  - In the case of accident or if you feel unwell, seek medical advice immediately.

# 5. Fire-Fighting measures

- 1) Suitable (and unsuitable) extinguishing media
  - ° Suitable extinguishing media
    - Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
  - · Unsuitable extinguishing media
    - Do not use a solid water stream as it may scatter and spread fire.
- 2) Special hazards arising from the substance or mixture
  - Pyrolytic product
  - No data available
  - $^{\rm O}$  Risk of fire and explosion
    - Heating or fire can release toxic gas.
  - ° Other
    - May cause toxic effects if inhaled.
- 3) Special protective equipment for firefighters
  - In the event of fire, wear self-contained breathing apparatus.

#### 6. Accident release measures

- 1) Personal precautions, protective equipment and emergency procedures
  - Avoid dust formation.
- 2) Environmental precautions
  - Try to prevent the material from entering drains or water courses.
- 3) Methods and materials for containment and cleaning up
  - Keep in suitable, closed containers for disposal.
  - Pick up and arrange disposal without creating dust.

## 7. Handling and storage

- 1) Precautions for safe handling
  - For personal protection see section 8.
  - Smoking, eating and drinking should be prohibited in the application area.
- 2) Conditions for safe storage (including any incompatibilities)
  - Please note that materials and conditions to be avoided.
  - Store in a dry place. Store in a closed container.

# 8. Exposure controls & personal protection

- 1) Chemical exposure limits, Biological exposure standard
  - Contains no substances with occupational exposure limit values.
- 2) Appropriate engineering controls
  - Ensure adequate ventilation and exhaust ventilation at the workplace.
- 3) Personal protective equipment
  - Respiratory protection
    - If you have a direct contact or exposed to the material, wear the appropriate form of respiratory protection certified.
  - Eye protection
    - If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
  - Hand protection
    - Wear chemical safety gloves.
  - Skin protection
    - Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

#### 9. Physical and chemical information

Property name	Values	Source
Appearance		
Physical state	Soild	
Color	Depends on customer needs	
Odor	Odorless	
Odor threshold	No data available	
рН	No data available	
Melting point/freezing point	No data available	
Initial boiling point and boiling range(°C)	No data available	
Flash point(°C)	No data available	
Evaporation rate	No data available	
Flammability(solid, gas)	No data available	
Upper/lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Solubility(ies)	Insolubility	
Vapour density	No data available	
Relative density	No data available	
n-octanol/water partition coefficient	No data available	

Auto ignition temperature	No data available	
Decomposition temperature	400 °C over	
Viscosity(mm²/s, 40°C)	No data available	
Molecular weight(mass)	50,000 - 250,000 (active)	
Specific gravity	1.02 - 1.12	

# 10. Stability and reactivity

- 1) Chemical stability and Possibility of hazardous reactions
  - No decomposition if stored and applied as directed.
  - Stable at normal ambient temperature and pressure.

#### 2) Conditions to avoid

- Follow precautionary advice and avoid incompatible materials and conditions
- 3) Incompatible materials
- Combustible material
- 4) Hazardous decomposition products
- This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regula

## 11. Toxicological information

- 1) Information on the likely routes of exposure
  - No data available

## 2) Health hazard information

- Acute toxicity
  - Acute toxicity(Oral) PRODUCT : Not classified
    - N,N'-ethylenedi(stearamide)
    - : LD50> 5000 mg / kg
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
      - : LD50> 2000 mg / kg experimental species: Rat
  - Acute toxicity(Dermal) PRODUCT : Not classified
    - N,N'-ethylenedi(stearamide)
      - : LD50> 2000 mg / kg
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : LD50> 2000 mg / kg experimental species: Rat
  - Acute toxicity(Inhalation:Gases) PRODUCT : Not classified

- No data available

- Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
  - No data available
- Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
  - : LC50> 1.81 mg /  $\ell$  4 hr experiment Species: Rat
- ° Skin corrosion/irritation PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
  - : There is only a very slight irritation: Rabbit, recovered within 7 days
- Serious eye damage/eye irritation PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : Irritation: test stimulation index: 4/110
- Respiratory sensitization
  PRODUCT : Not classified
  - No data available
- $^{\circ}$  Skin sensitization  $\$  PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : Guinea Pig: 3 weeks 3 intradermal injection, using 20 animals, no emotional reaction
- Carcinogenicity PRODUCT : Not classified
  - No data available
- Germ cell mutagenicity PRODUCT : Not classified
  - N,N'-ethylenedi(stearamide)
  - : In vitro / audio
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate

: Reverse mutation test: negative, TA98, TA100, TA1535, TA1537, voice over chromosomes with or without metabolic activation system applied in a used WP2uvrA hyayeo 4.1-1000µg / plate density test: Metabolic activity in voice, 10-100µg / ml with or without speech-based application-Dominant lethal in vivo assay: voice, NMRI mouse: 1000-3000 mg / kg bw Somatic mutation assay: voice, chinese hamster: 500-2000 mg / kg bw

- Reproductive toxicity PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate

: Rat: 2-generation reproductive toxicity study Reproductive toxicity: NOAEL 315mg / kg bw / day (up to a concentration probably has no effect), NOAEL for pup development: reduced newborn (96-111mg / kg bw / day's survival and growth at the highest concentration)

- ° Specific target organ toxicity single exposure PRODUCT : Not classified
  - No data available
- $^{\circ}$  Specific target organ toxicity repeated exposure  $\$  PRODUCT : Not classified
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
  - : rat (dust / mist inhalation, 21 days 5 days, 6 hours of exposure to one day per week): NOAEL> 0.543mg /
  - L (EU IUCLID), Rat: NOEL 30mg / kg bw / day 28 day 0, 5, 30 , gavage result of exposure to 100 and 300

mg 100, 300mg / kg bw / day group weight gain between the male 100, increases in Microsomal enzymes group 300 and the female 300mg / kg bw / day group

• Aspiration hazard PRODUCT : Not classified

- No data available

# 12. Ecological information

- 1) Ecotoxicity
  - Fish
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : LC50 100 mg /  $\ell$  96 hr Lepomis macrochirus
    - 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene
    - : LC50 11.5 mg /  $\ell$  96 hr Pimephales promelas
  - Crustaceans
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : EC50 100 mg / ℓ 24 hr Daphnia magna
  - Aquatic algae
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : ErC50> 30 mg /  $\ell$  72 hr Scenedesmus subspicatus
- 2) Persistence and degradability
  - Degradability

No data available

- Biodegradation
  - N,N'-ethylenedi(stearamide)
  - : 15 (%) 28 day
  - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
  - : 39 (%) ~ 21 (%) 28 day
- 3) Bioaccumulative potential
  - n-octanol water partition coefficient
    - N,N'-ethylenedi(stearamide)
    - : 13.98 log Kow (@ 25 °C)
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
    - : 13.41 log Kow ((estimated))
  - Bioconcentration factor(BCF)
    - Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate
      - :  $\leq$ 12 (carp (Cyprinus carpio) 6 Day 12 than at 0.05mg / L)
- 4) Mobility in soil
  - No data available
- 5) Other adverse effects
  - No data available

## 13. Disposal considerations

- 1) Disposal methods
  - Empty containers should be taken to an approved waste handling site for recycling or disposal.
- 2) Precautions (including disposal of contaminated container of package)
  - Dispose of in accordance with local regulations.
  - Send to a licensed waste management company.

# 14. Transport information

- 1) UN No. : Not applicable
- 2) Proper shipping name : Not applicable
- 3) Hazard class : Not applicable
- 4) Packing group : Not applicable
- 5) Marine pollutant : No
- 6) Special precautions for user related to transport or transportation measures :

Emergency measures in case of fire : Not applicable

Emergency measures in the effluent : Not applicable

- ADR
  - · Tunnel restriction code : Not applicable
- IMDG
  - · Marine pollutant : No
- Air transport(IATA)
  - · UN No. : Not applicable
  - · Proper shipping name : Not applicable
  - · Class or division : Not applicable
  - · Packing group : Not applicable

## 15. Regulatory information

Australia Industrial Chemicals Act

- Not applicable

China Inventory of Existing Chemical Substances (IECSC)

- Inventory China Inventory of Existing Chemical Substances (IECSC)
- N,N'-ethylenedi(stearamide) : Present [38286]
- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : Present [31615]

- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present [03641]

92/32/EEC

- Not applicable

European Union Official Journal of the European Communities 15 June 1990 - Annex Based on Article 13 of Directive 67/548/EEC Amended by Directive 79/831/EEC

- Inventory European Union European Inventory of Existing Commercial Chemical Substances (EINECS)
- N,N'-ethylenedi(stearamide) : 203-755-6
- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : 218-216-0

Japan Law Concerning the Examination and Regulations of Manufacture, etc. of Chemical Substances

- Inventory Japan Existing and New Chemical Substances (ENCS)
- N,N'-ethylenedi(stearamide) : (2)-831
- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : (3)-1737
- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : (6)-176

New Zealand Environmental Protection Authority, Inventory of Chemicals

• Inventory - New Zealand - Inventory of Chemicals (NZIoC)

- N,N'-ethylenedi(stearamide) : May be used as a single component chemical under an appropriate group standard

- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : HSNO Approval: HSR003658

- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : May be used as a single component chemical under an appropriate group standard

Turkey Regulation on Inventory and Control of Chemicals

- Not applicable

Taiwan Chemical Substance Inventory

- Inventory Taiwan Taiwan Chemical Substance Inventory (TCSI)
- N,N'-ethylenedi(stearamide) : Present
- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : Present
- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present

U.S. Toxic Substances Control Act

Vietnam National Chemicals Inventory (NCI)

- Inventory Vietnam National Chemicals Inventory (NCI) (DRAFT)
- N,N'-ethylenedi(stearamide) : Present 01999
- Octadecyl 3-(3,5-di-t-butyl-4-hydroxy phenyl) propionate : Present 07679

- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present 12125

# 16. Other information

#### 1) Reference

NCIS, KOSHA, Montreal Protocol, ECHA, OECD SIDS, EU IUCLID, HSDB(PubChem), NITE, NTP, ACGIH, IARC, NIOSH, ChemIDplus, EPA, EPI Suite, INCHEM

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- 3) Revision date
  - Revised date count : 2-1
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