SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Luran® S Color
This safety data sheet pertains to the following products:
Luran® S 776S UV GN36492

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Polymer
Basic material for chemical industry processing

Uses advised against: For toys and childcare articles

1.3 Details of the supplier of the safety data sheet

Company name: INEOS Styrolution APAC Pte Ltd.
Street/POB-No.: 111 Somerset Road
Postal Code, city: #08-01/02 TripleOne Somerset, SG
Singapore 238164
WWW: www.styrolution.com
E-mail: infopoint.asia@styrolution.com
Telephone: +65 6933 8350
Telefax: +65 6933 8355

Dept. responsible for information:
Infopoint, Telephone: + 65 (0) 6933 - 8372
E-mail: infopoint.asia@styrolution.com

1.4 Emergency telephone number

Telephone: + 65 (0) 3158 - 1074

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

2.3 Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
In case of dust formation (Fine dust): Danger of dust explosion
The melted product can cause severe burns.
Swallowing may cause gastrointestinal irritation and pain of guts.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Polymer mixture:
CAS No. 9003-54-7: Styrene-acrylonitrile copolymer
CAS No. 26299-47-8: Butyl acrylate-styrene-acrylonitrile copolymer
CAS No. 13463-67-7: Titanium dioxide

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 258-207-9 CAS 52829-07-9	Bis(2,2,6,6-Tetramethyl-4-piperidyl) sebacate	< 1 %	Eye Dam. 1. Aquatic Acute 1. Aquatic Chronic 1.

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation: Provide fresh air. Put victim at rest and keep warm. seek medical attention

Following skin contact: The melted product can cause severe burns.
Do not remove the product from the skin without medical assistance.
After contact with molten product, cool skin area rapidly with cold water. Consult physician.

After eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an eye specialist in the event of irritation.

After swallowing: Rinse mouth with water.
Drink one or two glasses of water.
Never give an unconscious person anything through the mouth. Seek medical attention

4.2 Most important symptoms and effects, both acute and delayed

Dust: Skin irritation, eye irritations and redness

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
Water fog, foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:
Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Smoke, hydrogen cyanide, carbon monoxide and carbon dioxide (CO2).
In case of dust formation (Fine dust): Danger of dust explosion

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.
Wear personal protection equipment. Do not breathe dust.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Avoid generation of dust. Remove all sources of ignition.
Take up mechanically. Collect in closed containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe dust.
In the case of the formation of dust: Withdraw by suction.
Molten material: Avoid contact with the substance.

Precautions against fire and explosion:

Take precautionary measures against static discharges. Keep away from sources of ignition. Use grounding equipment. Use explosion-proof equipment and non-sparking tools/utensils. Avoid open flames.
In case of dust formation (fine dust): Danger of dust explosion

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Store in a well-ventilated place. Keep container tightly closed.
Protect against heat /sun rays. Protect from moisture.

Further details: Special danger of slipping by leaking/spilling product.

Storage class: 11 = Combustible solids

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: The product contains very low levels of residual monomers and process chemicals (styrene, ethylbenzene, acrylonitrile and Butyl acrylate) that may be evolved during thermal processing, along with possible decomposition products. As the identity and levels of these impurities evolved will depend upon the processing conditions (temperature etc.) it is the responsibility of the user to determine the adequacy of any protection or safety measures.

8.2 Exposure controls

Provide good ventilation in the work area. Additional controls are not normally necessary when handling the polymer.

Thermal extrusion: Provide local exhaust ventilation to ensure that the workplace exposure limit is not exceeded.
Use of respiratory protection may be necessary during maintenance activities.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.
Use filter type A-P2 according to EN 14387.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber - Layer thickness. 0.11 mm.
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

In case of melting: Impervious heat protective gloves according to EN 407.
Glove material: Leather
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing. Boots or safety shoes.

General protection and hygiene measures:
Molten material: Avoid contact with skin.
Avoid breathing dust and vapours. Keep away from sources of ignition.
Wash hands before breaks and after work.

In case of dust formation: Particular danger of slipping on spilled product on the ground.

Environmental exposure controls

Do not allow to penetrate into soil, waterbodies or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Form: solid, pellets
Colour: varying, depends on colouring

Odour: weak, characteristic

Odour threshold: no data available

pH value: no data available

Melting point/freezing point:	> 100 °C (DIN EN ISO 306)
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	> 400 °C
Evaporation rate:	no data available
Flammability:	Not highly flammable.
Explosion limits:	no data available
Vapour pressure:	not applicable
Vapour density:	no data available
Density:	at 20 °C: approx. 1.07 g/cm³ (DIN 53479)
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	not applicable
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	approx. 320 °C
Viscosity, dynamic:	not relevant
Explosive properties:	In case of dust formation (Fine dust): Danger of dust explosion
Oxidizing characteristics:	not oxidising

9.2 Other information

Ignition temperature:	> 400 °C (DIN 51794)
Bulk density:	at 20 °C: approx. 600 kg/m³ (DIN 53466)

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

In case of dust formation (Fine dust): Danger of dust explosion

10.4 Conditions to avoid

Keep away from sources of ignition and heat.
Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In case of fire may be liberated: Smoke, styrene, methyl methacrylate, butadiene, carbon monoxide and carbon dioxide (CO2).

Thermal decomposition: approx. 320 °C

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data. May cause irritations.

Eye damage/irritation: Lack of data. May cause irritations.

Sensitisation to the respiratory tract: Lack of data. Not to be expected

Skin sensitisation: Lack of data. Not to be expected

Germ cell mutagenicity/Genotoxicity: Lack of data. Not to be expected

Carcinogenicity: Lack of data. Not to be expected

Reproductive toxicity: Lack of data. Not to be expected

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

Other information: When handled appropiately, even after long years of experience with this product, no adverse health effects are known.

Symptoms

Dust: Can cause skin, eye and respiratory tract irritation.
The melted product can cause severe burns.
Thermal treatment, Processing: Irritating to eyes, respiratory system and skin.
In case of ingestion: Swallowing may cause gastrointestinal irritation and pain of guts.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Information about Bis(2,2,6,6-Tetramethyl-4-piperidyl) sebacate: Very toxic to aquatic life with long lasting effects.
Algae toxicity:
EC50 Pseudokirchneriella subcapitata (green algae): 0.705 mg/L/72h (OECD 201)
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 8.58 mg/L/48h (OECD 202)
NOEC Daphnia magna (Big water flea): 0.23 mg/L/21d (OECD 211)
Fish toxicity:
LC50 Lepomis macrochirus (bluegill): 4.4 mg/L/96h (OECD 203)
Bacterial toxicity:
IC50 activated sludge: >100 mg/L/3 h (OECD 209)

12.2. Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.
The product is likely to persist in the environment.

Effects in sewage plants: In sewage treatment plants it may be separated mechanically.

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.

Partition coefficient: n-octanol/water:

not applicable

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 07 02 99 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres
MFSU = manufacture, formulation, supply and use

Recommendation: With due observance of the regulations laid down by the local authorities, this must be brought to a suitable incineration plant/waste disposal site.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations - Korea

Industrial Safety and Health Act

not applicable

Chemicals Control Act not applicable

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H318 = Causes serious eye damage.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.

Reason of change: Changes in section 1: Company name
General revision

Date of first version: 8/5/2013

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.