

SAFETY DATA SHEET

HCT Safety Data Sheet according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS), fifth revised edition of the GHS, published in 2013.

Date/Revised: 06. 10. 2015

Version: 2.1

Products: Soluryl 820

1. Chemical Product and Company Identification	
Product Name	Soluryl 820
Product Family	Styrene-Acrylic acid Copolymer
Recommended Use	Pigment grinding vehicle for water base ink
Supplier	Hanwha chemical Thailand Co., Ltd 377 Moo 17 Bangna-Trad Rd., Bangsaotong, Bangsaotong, Samutprakarn, 10540, TEL 66-2-315-3204~7 Seock Yong Shin, shin@hanwhath.com
Emergency Information	Joon Woo Ahn ahnjoonwoo@hanwhath.com , TEL 66-2-705-9681~4 (EXT. 103)

2. Hazards Identification

Hazard Classification : No need for classification in accordance with GHS

The products does not require a hazard warning label in accordance with GHS

3. Composition, Information on Ingredients

Component	CAS #	wt%
Styrene-a-methyl styrene-Acrylic acid copolymer	52831-04-6	>98.5
Dipropylene glycol monomethyl ether	34590-94-8	<1.5

4. First Aid Measures

Eye	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
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Skin	Immediately wash skin with plenty of soap and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash contaminated clothing and shoes before reuse.
Ingestion	Give 1~2 glasses of water to drink and get medical attention.
Inhalation	Remove to fresh air. Get medical attention If a cough or other respiratory irritation develop or persists.
Notes to Physician	Not necessary

5. Fire Fighting Measures

Extinguishing Media	Dry powder, Carbon dioxide, Water spray
Unsuitable Extinguishing Media	High pressure water jet
Decomposition Hazardous Gases	Could be formed corrosive and irritant gases
Fire Fighting Instruction	Respirator, Wear self-contained breathing apparatus

6. Accidental Release Measures

Personal Precautions	Wear eye, skin and respiratory protection during cleaning
Environmental Precautions	Not necessary
Methods for Clearing	Vacuum into a closed container or Sweep up mechanically

7. Handling and Storage

Handling	Handling may result in dust or powder from this product. When mixed with air in critical proportions and in the presence of an ignition source, the dust presents an explosion hazard. Use in a well ventilated area and handling methods that minimize dust production. Avoid contact with eyes, skin and cloth
Storage	Keep containers closed and upright to prevent leakage. Store in a cool, well ventilated area away from heat, sources of ignition, direct sunlight. Keep from Children

8. Exposure Controls & Personal Protection

Exposure Limit	Polymer/Solid, Not applicable
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Engineering Controls	Provide general clean air dilution or local exhaust ventilation in volume and pattern to prevent air contaminant concentration build-up
Protection	Eye: Wear safety glasses Skin: Wear appropriate protective gloves Respiratory: Avoid breathing dust. If exposed to dust, wear an appropriate, properly fitted respirator

9. Physical & Chemical Properties	
Physical state	Solid Bead
Color	Transparent, Clear
Odor	Faint
pH	Not applicable
Melting Point(°C)	Not applicable
Boiling Point(°C)	Not applicable
Flash Point(°C)	Not applicable
Evaporation Rate	Not applicable
Flammability	Not applicable
Explosive Limit	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density(g/cc)	1.10 ~ 1.13
Bulk Density(g/cc)	0.6 ~ 0.7
Solubility	Alkaline water soluble, Alcohol soluble, THF soluble
Partition Coefficient	Not applicable
Auto-ignition temp(°C)	Not applicable
Decomposition Temp(°C)	Not applicable
Viscosity(cps)	Not applicable
Molecular weight	7,200 ~ 8,800

10. Stability & Reactivity	
Chemical Stability	Stable
Possibility of Hazardous Reaction	None under normal conditions
Conditions to avoid	Elevated temperature

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Materials to avoid	Strong oxidizing materials
Hazardous decomposition products	Carbon dioxides, Incomplete combustion can produce carbon monoxide.

11. Toxicological Information

Information on the likely routes of exposure	No data available
Symptoms related to the physical, chemical and toxicological characteristics	No data available
Delayed and immediate effects and also chronic effects from short- and long-term exposure	No data available
Numerical measures of toxicity	No data available

12. Ecological Information

Ecotoxicity (aquatic and terrestrial, where available)	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

13. Disposal Information

Dispose of in accordance with local, state or national regulations.
 Do not incinerate closed containers.
 Incinerate in approved facility.

14. Transport Information

UN number	Not Classified
UN Proper shipping name	Not applicable
Transport Hazard class	Not Classified as a dangerous good
Packing group, if applicable	Not applicable
Marine pollutant	Not Classified as a dangerous good

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Special precautions which a user needs to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises	Not applicable
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15. Regulatory Information

Country and Inventory Status:

- TCSA Listed of USA:** Yes
- EINECS Listed of Europe:** Yes
- AICS Listed of Australia:** Yes
- ENCS Listed of Japan:** Yes
- IECSE Listed of China:** Yes
- DSL Listed of Canada:** Yes
- NZloC Listed of New Zealand:** Yes
- PICCS Listed of Philippines:** Yes
- EHS Listed of Malaysia:** Yes

For Switzerland: Swiss Ordinance SR 817.023.21, Annex6 (Packaging Inks)

All used ingredients for Soluryl 820 are listed in Annex 6, III of Swiss Ordinance SR 817.023.21 as amended either in List of Part A (evaluated substances) or Part B (non evaluated substances)

16. Other Reference

Date issued: 03.06.2015

Date revised: 06.10.2015

Revision No: 1

- This SDS has been issued by Hanwha Chemical Thailand Co., Ltd. complied with Globally Harmonized System of Classification and Labeling of Chemicals (GHS), fifth revised edition of the GHS, published in 2013.
- This SDS has been issued only to help the purchasers, agencies or the third parties who's needed to handle the material with safety, therefore, there should be no legal and technical responsibility if it applies to the special purpose and using with the other materials, commercial application or expression.
- The purchasers and agencies must have the responsibilities for the observance and compliance of the relevant regulations of each government because the specifications of this SDS cannot be available in accordance with the provisions of each nation or area.