


## 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 R-92

1. Chemical Product and Company Identification	
Product Name	Soluryl R-92
Product Family	Styrene Acryl Emulsion
Recommended Use	Let down vehicle for flexographic ink
Supplier	Hanwha chemical Thailand Co., Ltd 377 Moo 17 Bangna-Trad Rd., Bangsaotong, Bangsaotong, Samutprakarn, 10540, TEL 66-2-315-3204~8 Seock Yong Shin, <a href="mailto:shin@hanwhath.com">shin@hanwhath.com</a>
Emergency Information	Joon Woo Ahn <a href="mailto:ahnjoonwoo@hanwhath.com">ahnjoonwoo@hanwhath.com</a> , TEL 66-2-705-9681~4 (EXT. 103)
2. Hazards Identification	
Symbol	
Classification	Skin corrosion/irritation: Category 2 Serious eye damage/irritation: Category 2A
Signal Word	Warning
Hazard Statement	H315 Causes skin irritation H320 Causes eye irritation
Precautionary Statement	P264 Wash hands/skin thoroughly after handling P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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3. Composition, Information on Ingredients		
Component	CAS #	wt%
Styrene-Acrylate copolymer	25153-46-2	35~55
H <sub>2</sub> O	7732-18-5	55~65
Ammonium Hydroxide	1336-21-6	0~2

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.
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	
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Handling	Avoid breathing vapors and fumes. Prevent skin and eye contact. 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. Keep away freezing.

8. Exposure Controls & Personal Protection	
Exposure Limit	Polymer/Emulsion, Not applicable
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 vapors and fumes. If exposed to fumes, wear an appropriate, properly fitted respirator

9. Physical & Chemical Properties	
Physical state	Liquid
Color	Translucent
Odor	Mild
pH	~8.5
Melting Point(°C)	0°C
Boiling Point(°C)	100°C
Flash Point(°C)	Not applicable
Evaporation Rate	Not applicable
Flammability	Not applicable
Explosive Limit	Not applicable
Vapor Pressure	<1
Vapor Density	Not applicable
Relative Density(g/cc)	0.8 ~ 1.2
Bulk Density(g/cc)	Not applicable
Solubility	Not applicable
Partition Coefficient	Not applicable

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Auto-ignition temp(°C)	Not applicable
Decomposition Temp(°C)	Not applicable
Viscosity(cps)	~400 cps
Molecular weight	> 200,000

### 10. Stability & Reactivity

Chemical Stability	Stable
Possibility of Hazardous Reaction	None under normal conditions
Conditions to avoid	Elevated temperature
Materials to avoid	Strong oxidizing materials, Freezing condition
Hazardous decomposition products	Carbon dioxides, Incomplete combustion can produce carbon monoxide. The material will not support combustion if the water has not evaporated.

### 11. Toxicological Information

Information on the likely routes of exposure	None known
Symptoms related to the physical, chemical and toxicological characteristics	None known
Delayed and immediate effects and also chronic effects from short- and long-term exposure	None known
Numerical measures of toxicity	None known

### 12. Ecological Information

Ecotoxicity (aquatic and terrestrial, where available)	None known
Persistence and degradability	None known
Bioaccumulative potential	None known
Mobility in soil	None known
Other adverse effects	None known

### 13. Disposal Information

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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 applicable
Packing group, if applicable	Not applicable
Marine pollutant	None Known
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

### 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

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### 16. Other Reference

Date issued: 04.06.2015

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Revision No: 2.1

- 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 regal 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.