SAFETY DATA SHEET



AVALON® 80 AB

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

Product name	: AVALON® 80 AB
Use of the substance/ mixture	: Thermoplastic polyurethane
Supplier/Manufacturer	: China Huntsman Polyurethanes (China) Ltd, 452 Wen Jing Road, Minhang Econ. & Tech, Dev. Zone, Shanghai 200245 +86 (0)21 2403 7288
	Huntsman Chemical Trading (Shanghai) Ltd, Room 1205, 118 Xin Ling Road, Pudong New Area, Shanghai 200131
	Huntsman Polyurethanes Shanghai Ltd, No.139 Shen Gong Road, SCIP, Shanghai 201507, P.R.China
	Hong Kong Huntsman International (Hong Kong) Limited, Room 3108-11, 31/F, Tower 1, Millennium City 1, No. 388 Kwun Tong Road, Kowloon, Hong Kong
	Singapore Huntsman (Singapore) Pte Ltd, 150 Beach Road #37-00, Gateway West, Singapore 189720
	Taiwan Huntsman (Taiwan) Ltd, 19 Industrial Third Road, Kuan-Yin, Taoyuan County, Taiwan Tel: (03) 483-8616 Fax: (03) 483-9324
Emergency telephone number (24h/7day)	: EUROPE: +32 35 75 1234 USA: +1/800/424.9300 ASIA: +65 6542 9595 China: +86 20 39377888 +86 532 83889090 India +91 22 42 87 5333 Australia: 1800 786 152 New Zealand: 0800 767 437
e-mail address of person responsible for this SDS	: Global_Product_EHS_HPU@huntsman.com

Section 2. Hazards identification

Classification of the substance or mixture <u>GHS label elements</u>	:	Not classified.
Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Precautionary statements		
Prevention	:	Avoid ingestion, inhalation, skin and eye contact. Handle in accordance with good industrial hygiene practice and any legal requirements.
Response	:	Not applicable.
Storage	:	Store in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

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Disposal
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: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not : result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Ingestion	:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Most important symptoms/e	effe	cts, acute and delayed
Potential acute health effect	<u>cts</u>	
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Eye contact	:	No known significant effects or critical hazards.
Over-exposure signs/symp	oton	<u>ns</u>
Inhalation	1	No specific data.
Ingestion	1	No specific data.
Skin	- 1	No specific data.
Eyes	1	No specific data.
Indication of immediate med	dica	I attention and special treatment needed, if necessary
Specific treatments	- 1	Not available.
Notes to physician	:	Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.
Protection of first-aiders	1	No action shall be taken involving any personal risk or without suitable training.
See toxicological information	on (S	Section 11)

Section 5. Fire-fighting measures

Extinguishing media		
Suitable	1	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	1	None known.
Specific hazards arising from the chemical	;	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Unlikely under normal industrial use. If the product is heated to temperatures excessively higher than those recommended on the technical data sheet, then thermal decomposition is possible". Combustion products may include: carbon oxides (CO, CO2), nitrogen oxides (NO, NO2, etc.), hydrocarbons, HCN.
Special precautions for fire- fighters	-	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	:	Not available.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Hazard of slipping on spilt product. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and material for containment and cleaning up	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
		Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal

Section 7. Handling and storage

Precautions for safe handling	:	Put on appropriate personal protective equipment (see Section 8). Burns are the most common injury during melt processing of thermoplastics. Take utmost care. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
		Put on appropriate personal protective equipment (see Section 8).
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
None.	

:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
:	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
res	
:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
:	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
	Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at www.gisbau.de.
:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	: :

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Solid. [Pellets.]
Colour	: Not available.
Odour	: Not available.
Odour threshold	: Not available.

Version : 5 Date of issue/Date of : 4/9/2015. revision

Section 9. Physical and chemical properties

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рН	Not available.	
Melting point	Not available.	
Boiling point	Not available.	
Flash point	Not applicable.	
Evaporation rate (butyl acetate = 1)	Not available.	
Flammability (solid, gas)	Thermal decomposition products are toxic and may include hydrocarbons, oxid carbon and other irritating gases.	les of
Lower and upper explosive (flammable) limits	Not available.	
Vapour pressure	Not available.	
Vapour density	Not available.	
Relative density	Not available.	
Solubility	Not available.	
Partition coefficient: n- octanol/water	Not available.	
Auto-ignition temperature	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

Other information

No additional information.

Section 10. Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on the like	<u>tely routes of exposure</u>
Inhalation	 Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.
Symptoms related to	the physical, chemical and toxicological characteristics
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin contact	: No specific data.
Eye contact	: No specific data.
Delayed and immedia	te effects and also chronic effects from short and long term exposure
Potential chronic he	alth effects
Inhalation	: No known significant effects or critical hazards.

Version : 5

Section 11. Toxicological information

		5
Ingestion	1	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Eye contact	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.
Delayed and immediate effe	<u>cts</u>	and also chronic effects from short and long term exposure
<u>Short term exposure</u>		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Aspiration hazard		

Not available.

Section 12. Ecological information

Environmental effects	: No known significant effects or critical hazards.
Mobility	: Not available.
Other adverse effects	: No known significant effects or critical hazards.
Soil/water partition coefficient (Koc)	: Not available.

Results of PBT and vPvB assessment

Not applicable.

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil waterways. drains and sewers
	contact with soil, waterways, drains and sewers.

Section 14. Transport information

International transport regulations

	14.1 UN number	14.2 UN proper shipping name
ADR/RID	Not regulated.	-
IMDG	Not regulated.	-
ΙΑΤΑ	Not regulated.	-

Version	: 5	Date of issue/Date of	:	4/9/2015.
		revision		

Precautionary statements

Prevention

Response

Avoid ingestion, inhalation, skin and eye contact. Handle in accordance with good industrial hygiene practice and any legal requirements. Not applicable. Date of issue/Date of : 4/9/2015. revision

AVALON® 80 AB Section 14. Transport information

14.4 Packing

group

14.5

hazards

Environmental

14.3 Transport

hazard class(es)

ADR/RID	-	-	No.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	-
IMDG	-	-	No.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	-
IATA	-	-	No.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	-
14.7 Transport in bulk : Not applicable. according to Annex II of . MARPOL 73/78 and the IBC . Code .					
	. Regula	atory information			
Signal word		: No signal word.			
Hazard statemen	ts	: No known significant effe	ects or critical haz	ards.	

Additional

information

14.6 Special

user

precautions for

Section 15. Regulatory information

Storage	tore in accordance with all local, regiona	al, national and international regulations.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.	

Additional information: EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases	: This product is not classified according to EU legislation.
Exceptional labelling of special preparations	: None.

Section 16. Other information

<u>History</u>	
Date of printing	: 9 April 2015
Date of issue/Date of revision	: 9 April 2015
Date of previous issue	: 1 December 2014
Version (M)SDS no. Supplier	 5 00021742 China Huntsman Polyurethanes (China) Ltd, 452 Wen Jing Road, Minhang Econ. & Tech, Dev. Zone, Shanghai 200245 +86 (0)21 2403 7288 Huntsman Chemical Trading (Shanghai) Ltd, Room 1205, 118 Xin Ling Road, Pudong New Area, Shanghai 200131
	Huntsman Polyurethanes Shanghai Ltd, No.139 Shen Gong Road, SCIP, Shanghai 201507, P.R.China
	Hong Kong Huntsman International (Hong Kong) Limited, Room 3108-11, 31/F, Tower 1, Millennium City 1, No. 388 Kwun Tong Road, Kowloon, Hong Kong
	Singapore Huntsman (Singapore) Pte Ltd, 150 Beach Road #37-00, Gateway West, Singapore 189720
	Taiwan Huntsman (Taiwan) Ltd, 19 Industrial Third Road, Kuan-Yin, Taoyuan County, Taiwan Tel: (03) 483-8616 Fax: (03) 483-9324
Key to abbreviations	: ASTM = American Society for Testing Materials DNEL = Derived No Effect Level ETAD = The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods OECD = Organisation for Economic Co-operation and Development PNEC = Predicted No Effect Concentration

Section 16. Other information

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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