

Material Safety Data Sheet

PRODUCT NAME: SYNOLAC 9645S55

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Version: 3

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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Product name: SYNOLAC 9645S55

Synonyms, Trade names: Polyester resin

Applications: Raw material for paints and lacquers

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	CAS No.:	Content	Symbol	R phrases
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	30 %	Xn, N	R-51/53, 65, 66, 67
2-Butoxyethanol	111-76-2	10 %	Xn	R-20/21/22, 36/38
Xylene	1330-20-7	4 %	Xn	R-10, 20/21, 38
Ethylbenzene	100-41-4	1 %	F, Xn	R-11, 20

See section 16 for explanations to R phrases.

3. HAZARDS IDENTIFICATION

Flammable.
 Harmful by inhalation, in contact with skin and if swallowed.
 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The mixture of product vapor and air could be explosive.
 Keep away from sources of ignition.

4. FIRST AID MEASURES

General: Move the exposed person to fresh air at once.
 Get medical attention if any discomfort continues.

Inhalation: Take person out of the contaminated area. Remove patient to fresh air.
 If the patient has difficulties breathing, call a doctor.

Ingestion: DO NOT INDUCE VOMITING!
 Do NOT make the victim drink milk or fatty fluids.
 If swallowed, seek immediate medical advice and show container or label to the doctor.

Skin: Remove contaminated clothing.
 Wash the skin immediately with soap and water.

Get medical attention promptly if symptoms occur after washing.

Eyes:

Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes and get medical attention. Never use solvent. Contact physician if irritation persists.

5. FIRE FIGHTING MEASURES**Extinguishing Media:****RECOMMENDED:**

Water spray, fog or mist. Powder, foam or CO₂.

NOT SUITABLE:

Water jet.

Special fire fighting procedures:

Treat as hydrocarbon fire.

In case of fire and/or explosion, do not breathe fumes.

Cool containers exposed to flames with water until well after the fire is out.

Keep run-off water out of sewers and water sources. Dike for water control.

Specific hazards:

Forms explosive mixtures with air.

Hazardous combustion products:

Toxic gases / vapors / fumes.

Carbon monoxide (CO), carbon dioxide (CO₂), ...

Protective measures in fire:

Wear individual breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES**Personal protection:**

Refer to protective measures listed in sections 7 and 8. Avoid inhaling vapors.

Environmental protection:

Discharge in sewers is prohibited.

Do not allow this chemical to enter the environment.

If the product contaminates lakes, rivers or sewers, inform appropriate authorities in accordance with local regulations.

Spill cleanup methods:

Absorb in vermiculite, dry sand or earth and place into containers.

Wear necessary protective equipment.

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

Avoid contact with skin or inhalation of spillage, dust or vapor.

Provide ventilation and confine spill. Do not allow runoff to sewer.

Wash thoroughly after dealing with a spillage.

7. HANDLING AND STORAGE**Usage precautions:**

Keep away from heat, sparks and open flame.

Ventilate well, avoid breathing vapors. In case of insufficient ventilation, wear suitable respiratory equipment.

Avoid spilling, skin and eye contact.

Take precautionary measures against electrostatic charges.

Storage precautions: Keep in cool, dry, ventilated storage and closed containers.
 Keep in original container.
 Keep away from heat, sparks and open flame.
 Keep separate from food, feedstuffs, fertilizers and other sensitive material.
 Use containers made of:
 Metals
 Do NOT use containers made of:
 Plastics.

Storage criteria: Flammable liquid storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ingredient name	CAS No.	Std	LT Exp. 8 hrs	ST Exp 15 min
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	-	-	-
2-butoxyethanol	111-76-2	EH40 (HSE) 2004	2 ppm	30 ppm
Xylene	1330-20-7	EH40 (HSE) 2004	50 ppm	100 ppm
Ethylbenzene	100-41-4	EH40 (HSE) 2004	100 ppm	125 ppm

Process conditions: Use engineering controls to reduce air contamination to permissible exposure levels.
 Provide eyewash station.

Ventilation: Provide adequate general and local exhaust ventilation.

Respirators: Do NOT breathe vapors.
 If ventilation is insufficient, suitable respiratory protection must be provided.

Protective gloves: Use protective gloves.

Eye protection: Wear approved safety goggles.

Other protection: Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygienic work practices: DO NOT SMOKE IN WORK AREA!
 No eating or drinking while working with this material.
 Wash hand at the end of each work shift and before eating, smoking and using the toilets.
 Promptly remove any clothing that becomes contaminated.
 Wash promptly with soap and water if skin becomes contaminated.
 Use appropriate skin cream to prevent drying of skin.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.
Color: Colorless
Odor: Solvent

Physical data comments: Take precautionary measures against electrostatic discharges.

Density (g/ml):	1.06	Temperature: 25 °C
Solubility description:	Insoluble in water. Soluble in organic solvents (most).	
Boiling point (°C):	170 – 190	(solvent naphtha)
Flash point (°C):	47	Method: PMCC, ASTM D93
Flammability Limit - Lower:	0.60 vol.%	(solvent naphtha)
Flammability Limit - Upper:	7.00 vol.%	(solvent naphtha)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal storage condition.
Conditions to avoid:	Avoid heat. Avoid contact with acids and oxidizing substances.
Hazardous Decomp. products:	By thermal decomposition, formation of: Toxic gases/vapors/fumes of: Carbon monoxide (CO), carbon dioxide (CO ₂), hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Inhalation:	Harmful by inhalation.
Ingestion:	Harmful if swallowed.
Skin:	Harmful in contact with skin.
Eyes:	May cause severe irritation to eyes.

12. ECOLOGICAL INFORMATION

Ecological information:	Do not discharge into drains or the environment; dispose to an authorized waste collection point. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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13. DISPOSAL CONSIDERATIONS

Disposal methods:	Dispose of in accordance with local authority requirements. Dispose to an authorized waste collection point. Do not allow runoff to sewer, waterway or ground.
Contaminated packaging:	Cleaned packaging may be recycled.

14. TRANSPORT INFORMATION

Road transport:	
UN No. Road:	1866
ADR Class:	Class 3: flammable liquids

ADR packing group: III
HAZARD NO. (ADR): 30 Flammable liquid (flash point between 23 °C and 61 °C, inclusive) or flammable liquid or solid in the molten state with a flash point above 61 °C, heated to a temperature equal or above its flash point, or self-heating liquid.

ADR label No: 3
Proper shipping name: RESIN SOLUTION, flammable
Road transport notes: Emergency action code (UK) – 3Y

Rail transport:

RID class no: 3

Sea transport:

UN No. sea: 1866
IMDG class: 3
IMDG packing group: III
EMS No: F-E, S-E
Marine pollutant: P

Air transport:

UN No. air: 1866
IATA/ICAO class: 3
IATA/ICAO packing group: III

15. REGULATORY INFORMATION

Risk phrases: R-10 Flammable.
R-20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R-51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases: S-21 When using do not smoke.
S-24/25 Avoid contact with skin and eyes.
S-41 In case of fire and/or explosion do not breathe fumes.
S-51 Use only in well ventilated areas.
S-61 Avoid release to the environment. Refer to special instructions / Safety Data Sheets.

Symbols: - Flammable
Xn Harmful
N Dangerous for the environment.

Contains: 2-butoxyethanol.

EU directives: Commission directive 2001/59/EC of August 6 2001 adapting to technical progress for the 28th time. Council directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances (Official journal L225 – 21/08/2001).
Dangerous preparations: directive 99/45 amended by directive 2001/60/EC – OJEC L226-22/08/2001.
Directive 91/155/EEC amended by directive 93/112/EEC and directive 2001/58/EC: Safety data sheets.

Malaysia: Occupational safety and health (classification, packaging and labeling of hazardous chemicals) order 1997.

Guidelines for the classification of hazardous chemicals, department of occupational safety and health, ministry of human resources, 1997.

16. OTHER INFORMATION

In accordance with the requirements of directive 2001/58/EC, the full text of risk phrases referred to in chapter 2 is stated here:

- R-10 Flammable
- R-11 Highly flammable.
- R-20 Harmful by inhalation.
- R-20/21 Harmful by inhalation and in contact with skin.
- R-20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R-36/38 Irritating to eyes and skin.
- R-38 Irritating to skin.
- R-51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R-65 Harmful: may cause lung damage if swallowed.
- R-66 Repeated exposure may cause skin dryness or cracking.
- R-67 Vapors may cause drowsiness and dizziness.

User notes:

This information ONLY applies to this product which conforms to the specification of ARKEMA.
In case of formulations or mixtures, the user must ensure that new hazards are not apparent in line with the above.
The information contained herein is based on our knowledge of the product, at the date of publishing and is given in good faith.
Please note the possible risks involved if this product is used for applications other than those for which it is intended.
This sheet shall only be used and reproduced for Health and Safety purposes.
The references to legislative & regulatory information and codes of practice are not exhaustive.
Other applicable regulations may be considered.
It is the responsibility of the user to refer to existing legislation concerning the use, storage and the safe handling of the product.
It is also the responsibility of the user to communicate ALL information related to the protection of Health, Safety & Environment contained within this Material Safety Data Sheet to those persons involved in the handling of this product.

Information sources:

See also technical data sheet.