



SAFETY DATA SHEET

1. Identification of the preparation and of the company

Product name and/or code:	SYNTEKO BEST 1643/1644/1645
Chemical/technical name:	Lacquer
Manufacturer:	ES SADOLIN AS TOBIASE 8 TALLINN 10147 Estonia Tel.+ 372 6 30 52 99 Fax: +372 6 305256 es@sadolin.ee
Emergency telephone number:	112
Poison centre:	6269390, direct number 16662
Intended use:	For decorative and protective treatment. For further information see product data sheet.

2. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification:	Not classified
Human health hazards	This preparation is not classified as dangerous according to the EC Directive 1999/45/EC
Fire hazards:	Not flammable

3. Composition/information on ingredients

Substance/preparation: Preparation

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC:

Ingredient name	CAS number	EC number	Concentration %	Classification
1-methyl-2-pyrrolidone	872-50-4	212-828-1	1-5	X _i ; R36/38
2-(2-butoxyethoxy)ethanol	112-34-5	203-961-6	1-5	X _i ; R36
Triethylamine	121-44-8	204-469-4	0,1-0,5	F; R11 C; R35 X _n ; R20/21/22
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.
See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

General:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation:	If inhaled, remove to fresh air. Get medical attention if irritation occurs.
Ingestion:	If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
Skin contact:	Wash contaminated skin with soap and water. Get medical attention if irritation

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develops.

5. Fire-fighting measures

Suitable:	Alcohol resistant foam, CO ₂ , powders, water spray.
Not to be used:	Do not use a heavy water stream.
Recommendations:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

6. Accidental release measures

Personal precautions:	Use suitable protective equipment (section 8).
Environmental precautions:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Methods for cleaning up:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses.

7. Handling and storage

Handling:	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid inhalation of dust from sanding. Comply with the health and safety at work laws.
Storage:	Observe label precautions. Store at a temperature above °C. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.
<u>Packaging materials:</u> Recommended:	Use original container. Keep container tightly closed.

8. Exposure controls/personal protection

<u>Exposure limit values:</u>	n.a.
Recommended monitoring procedures <u>Exposure controls</u>	Provide adequate ventilation.
Respiratory protection:	Wear appropriate respirator when ventilation is inadequate.
Hand protection:	Gloves
Eye protection:	Safety glasses
Skin protection:	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. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and chemical properties

General information

Appearance:	Viscous liquid
Colour:	Colourless
Odour:	Perceptable odour

Important health, safety and environmental information

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pH: Ca.8
Flash point (°C): >61 °C
VOC (g/l) 115-130
Density (kg/dm³): 1,04
Solubility: Dilutable in water.

10. Stability and reactivity

Stability: Stable under recommended storage and handling conditions (see section 7).

11. Toxicological information

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

Skin contact: Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Eye contact: The liquid splashed in the eyes may cause irritation and reversible damage.

12. Ecological information

There are no data available on the preparation itself.
The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

Additional information: This product contains 115-130 g/l VOC

13. Disposal considerations

Methods of disposal: 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.

Waste classification:
European waste catalogue (EWC) 08 01 12* (European Waste Catalogue)

14. Transport information

This preparation is not classified as dangerous according to international transport regulations, (ADR/RID, IMDG, ICAO/IATA)

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADR/RID Klass	Not regulated	--	--	--	--	--
ADN Klass	Not regulated	--	--	--	--	--

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IMDG Klass	Not regulated	--	--	--	--	--
IATA-DGR Klass	Not regulated	--	--	--	--	--

PG* : Packing group

15. Regulatory information

EU regulations

Hazard symbol/symbols: --

Risk phrases: --

Safety phrases: S 2 Keep out of reach of children
S 46 If swallowed, seek medical advice immediately and show this container or label

Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe
R11 Very flammable
R22 Harmful if swallowed.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
R35 Causes severe burns

Full text of classifications referred to in sections 2 and 3 - Europe
Xn HARMFUL
Xi IRRITATING
F VERY FLAMMABLE

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Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.



SAFETY DATA SHEET

1. Identification of the preparation and of the company

Product name and/or code:	SYNTEKO HARDENER 1648
Chemical/technical name:	Hardener
Manufacturer:	ES SADOLIN AS TOBIASE 8 TALLINN 10147 Estonia Tel.+ 372 6 30 52 99 Fax: +372 6 305256 es@sadolin.ee
Poison Centre:	6269390, direct number 16662
Emergency telephone number:	112
Intended use:	Hardener

2. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification:	Xn; R42/43
Legend:	R42/43- May cause sensitisation by inhalation and skin contact. Contains isocyanates. See information supplied by the manufacturer.

3. Composition/information on ingredients

Substance/preparation: Preparation

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC:

Ingredient name	CAS number	EC number	Concentration %	Classification
Hexamethylendiisocyanat prepolymer	28182-81-2	500-060-2	60-70	Xn; R42/43
Hexamethylene-1,6-diisocyanate	22-06-0	212-485-8	<0,15	T; R23 Xi; R36/37/38, R42/43

See section 16 for the full text of the R-phrases declared above.
Occupational exposure limits, if available, are listed in section 8.
See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

General:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation:	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.
Ingestion:	If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

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Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do not use solvents or thinners.
Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

5. Fire-fighting measures

Suitable: Use dry chemicals, CO₂, water spray or foam.
Hazardous thermal decomposition products: Fire will produce dense black smoke. In a fire, the following can be released: Cyanate, Isocyanate, carbon monoxide (CO), nitrogen oxides (NO_x) and hydrogen cyanide (HCN).
Not to be used: Water may be ineffective in extinguishing large fires.
Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).
Special risks: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.

6. Accidental release measures

Personal precautions: Put on protective equipment (see chapter 8). Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away. Avoid breathing vapour or mist.
Environmental precautions: If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
Methods for cleaning up: Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO₂). Keep damp in a safe ventilated area for several days. Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses.

7. Handling and storage

Handling: Keep away from heat. Do not apply the product by spraying. Spray mist is harmful even in small doses.
When working with isocyanates, the workplace must be well ventilated. People with problems in lungs or windpipes should not work with isocyanate products. The concentration that might cause allergic reactions is lower than the concentration that can be smelled.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between 10 to 30°C Do not empty into drains.
Recommended: Use original container. Keep container tightly closed.

8. Exposure controls/personal protection

Recommended monitoring procedures: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Exposure controls

Occupational exposure controls: Use process enclosures, local exhaust ventilation or other engineering controls



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Respiratory protection: to keep airborne levels below recommended exposure limits.
In case of insufficient ventilation, wear suitable respiratory equipment. Type A2 / P 2.

Hand protection: Wear suitable gloves. Type H 4

Eye protection: Safety glasses with side shields.

Skin protection: 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Occupational exposure limits

Substance Name	CAS number	Long term exposure limit 8 hour TWA		Short term exposure limit (STEL) 15 minute	
		(ppm)	(mg/m ³)	(ppm)	(mg/m ³)
hexamethylene-1,6-diisocyanate	822-06-0		0,02		0,07

9. Physical and chemical properties

General information

Appearance: Liquid
 Colour: Colourless
 Odour: Characteristic

Important health, safety and environmental information

pH: n.a.
 Flash point (°C): 65°C
 Boiling point (°C): n.a.
 Explosion limits (v/v): 1-14
 Density (kg/l): 1.08

10. Stability and reactivity

Stability: Stable under recommended storage and handling conditions (see section 7).

Condition to avoid: Keep away from heat, flames, ignition sources and incompatibles.
 Materials to Avoid: Strong oxidants, alkali metals, ammonia, oxidizing agents, peroxides.
 Hazardous decomposition products: Carbon Dioxide (CO₂) and Carbon Monoxide (CO).

11. Toxicological information

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

Isocyanates are mild skin irritants and may cause dermatitis.

Eye contact: Irritating to eyes.

Inhalation: May cause sensitization by inhalation. Due to the low volatility, harmful concentrations in the air will appear preferably when heated, spraying or by dust appearance. Inhalation of high concentrations may have a primary irritant effect on respiratory tract causing dry throat, coughing, fever, ague and nausea. Asthmatic attacks with laboured breathing, shortness of breath, chest tightening and difficulty in breathing may result and may occur immediately on

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exposure or some hours later. When sensitized respiratory inconvenience may occur at concentrations well below the threshold limit value.

Isocyanates are mild skin irritants and may cause dermatitis.

Skin contact: May cause sensitisation by inhalation and skin contact.

Acute toxicity, oral: hexamethylene-1,6-diisocyanate LD50 rat: 746 mg/kg

Acute toxicity, dermal: hexamethylene-1,6-diisocyanate LD50 rabbit: 593 mg/kg

Acute toxicity, inhalation: hexamethylene-1,6-diisocyanate LC50 rat: 0,124 mg/l, 4 h

Concentration of the saturated vapor of 1,6-HDI at 25 °C: 0,095 mg/l

Primary skin irritation: hexamethylene-1,6-diisocyanate rabbit

Classification: Corrosive

Result: severe irritant

Primary mucosae irritation: hexamethylene-1,6-diisocyanate rabbit

Classification: Corrosive

Result: severe irritant

Sensitization:

aliphatic polyisocyanate

May cause sensitisation by skin contact.

hexamethylene-1,6-diisocyanate

Skin sensitisation according to Magnusson/Kligmann (maximizing test): guinea pig

Result: positive

Method: OECD Test Guideline 406

CMR classification:

hexamethylene-1,6-diisocyanate

Mutagenicity: Not mutagenic in AMES Test

12. Ecological information

There are no data available on the preparation itself.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

13. Disposal considerations

Methods of disposal:

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.

Waste classification:

08 01 11* (European Waste Catalogue)

14. Transport information

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.

The product is not classified as dangerous for carriage.

15. Regulatory information

Hazard symbol/symbols:



HARMFUL

Contains:

Hexamethylene-1,6-diisocyanate

Risk phrases:

R42/43 May cause sensitization by inhalation and skin contact.

Safety phrases:

S2 Keep out of reach of children



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- S23 Do not breathe vapour and spray mist
S24 Avoid contact with skin
S28 After contact with skin, wash immediately with plenty of soap and water
S37 Wear suitable gloves
S46 If swallowed, seek medical advice immediately and show this container or label
S51 Use only in well-ventilated areas
Contains isocyanates. See information supplied by the manufacturer

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe

- R23 Toxic by inhalation.
R36/37/3 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitisation by inhalation and skin contact

Full text of classifications referred to in sections 2 and 3 - Europe

- Xn HARMFUL
Xi IRRITATING
T TOXIC

Version:

2

UPDATE:

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07.10.2009

Date of previous issue

03.04.2008

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.