

MATERIAL SAFETY DATA SHEET

Classified as Hazardous according to criteria of Worksafe Australia

Formasil Xact Hardener

IDENTIFICATION

Product Name:	Formasil Xact Hardener.
Product Use:	Resin for indirect surface testing and impressions
UN Number:	None allocated
Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated
Subsidiary risk:	None allocated
Packing Group:	None allocated
Hazchem Code:	None allocated
Poison Schedule:	None allocated

PHYSICAL PROPERTIES

General Information

Form:	Pasty
Color:	Red
Odor:	Aromatic

Change in condition

Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	110°C (230°F)
Flash point::	88°C (190°F) (DIN 51755)
Ignition temperature:	370.0°C (698°F) (DIN 51794)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Density at 20°C (68°F):	1.100 g/cm3

Solubility in / Miscibility with water:	Not miscible or difficult to mix
Solvent content - Organic solvents:	0.9%
Solids content:	16.4%

INGREDIENTS

Chemical characterization

Description - Dangerous components: 77-58-7 dibutyltin dilaurate ; Xn R 20/21/22-36/38-52/53 j 10-25%.
Additional information For the wording of the listed risk phrases refer to section OTHER INFORMATION.

HEALTH HAZARD INFORMATION

Hazard description: Not applicable.

Information pertaining to particular dangers for man and environment : Not applicable.

Classification system

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

NFPA ratings for USA (scale 0-4)
Health = 1, Fire = 1 Reactivity = 1

HMIS-Ratings (Scale 0-4)
Health = 1, Fire = 1, Reactivity = 1

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FIRST AID

After inhalation: Supply fresh air.
 After skin contact : Generally the product does not irritate the skin.
 After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
 After swallowing: Induce vomiting and seek advice of physician.

FIRE - FIGHTING MEASURES

Suitable extinguishing agents: CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam. Use fire fighting measures that suit the environment.
 Special hazards caused by the material, its products of combustion or resulting gases: Formation of toxic gases is possible during heating or in case of fire.
 Protective equipment: Mount respiratory protective device.

ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Not required.
 Measures for environmental protection: No special measures required.
 Measures for cleaning/collecting: Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).
 Additional information: See Section EXPOSURE CONTROLS /PERSONAL PROTECTION for information on personal protection equipment. See Section DISPOSAL CONSIDERATIONS for disposal information.

HANDLING AND STORAGE

Handling

Information for safe handling: Keep receptacles tightly sealed.
 Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see Handling & Storage.

Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

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EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)

Personal protective equipment

General protective and hygienic

Measures:

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.

Breathing equipment:

Not necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

Protection of hands:

Not required.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material:

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Butyl rubber, BR
 Nitrile rubber, NBR

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

PVC or PE gloves

Eye protection:

Protective goggles are recommended.

Body protection:

Light weight protective clothing.

STABILITY AND REACTIVITY

Dangerous reactions:

No dangerous reactions known.

Dangerous products of decomposition:

None

TOXICOLOGICAL INFORMATION

Acute toxicity:

LD/LC50 values that are relevant for classification:

Activator Universal Optosil-Xantopren Paste

Oral LD50 4100 mg/kg (rat)

Primary irritant effect

on the skin:

No irritant effect.

on the eye:

No irritating effect.

Sensitization:

No sensitizing effects known.

Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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ECOLOGICAL INFORMATION

General notes:

Water hazard class 2

(Self-assessment): Hazardous for water.

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

DISPOSAL CONSIDERATIONS

Product

Recommendation: Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

Uncleaned packagings

Recommendation: Disposal-must be made according to official regulations.

TRANSPORT INFORMATION

Land transport ADR/RID

(cross-border)

ADR/RID class: -

Maritime transport IMDG

IMDG Class: -

Marine pollutant:: Yes

REGULATORY INFORMATION

SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

SARA Section 313 (specific toxic chemical listings)

None of the ingredients is listed.

TSCA (Toxic Substances Control Act)

77-58-7 dibutyltin dilaurate

7631-86-9 silicon dioxide, chemically prepare

Ethanol

78-10-4 tetraethyl orthosilicate

1320-06-5 C. /.Solvent Red 27

Prop 65 - Chemicals known to cause cancer

None of the ingredients is listed.

Prop 65 - Chemicals known to cause reproductive toxicity.

None of the ingredients is listed.

Carcinogenicity categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

IARC (International Agency for Research on Cancer)

7631-86-9 silicon dioxide, chemically prepared 3

NTP (National Toxicology Program)

None of the Ingredients is listed.

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REGULATORY INFORMATION (Cont.)

TL V (Threshold Limit Value established by ACGIH)

77-58-7 dibutyltin dilaurate A4

Ethanol A4

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Markings according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

National regulations

Technical instructions (air):

<u>Class</u>	<u>Share in %</u>
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NK	<1
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Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

OTHER INFORMATION

Relevant R-phrases

20/21/22

36/38

52/53

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes and skin.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

CONTACT POINT

Contact Point

Technical Manager 03 9579 2044

Disclaimer The information herein is to the best of our knowledge, correct and complete. It describes the safety requirements for this product and should not be construed as guaranteeing specific properties. Since methods and conditions are beyond our control we do not accept liability for any damages resulting from the use of or reliance on, this information in inappropriate contexts.