

Safety Data Sheet

Boydur® Marker663

Identification of the substance/ preparation and of the company undertaking:
Product Information: Accelerator-Free Methacrylate Resin For Permanent Cold Spray
Plastic Road Markings, For The 1:1 System, 0.3-1.2 mm

Information About The Manufacturer:

Boytorun Kimya Sanayi A.S.
İ.E.T.T. Sit., 3. Blok,D: 1, Emirgan- 34467- Istanbul- TR.
Emergency Call: 0090-212- 229 18 29- 2 29 18 34
Fax: 0090-212-229 18 59, E-Mail: info@boytorun.com

Information Of Ingredients:

Chemical properties:

Two Components, Methylmethacrylate Based Self Leveling Floor

Cas No: 80-62-6

Index No: 607-035-00-6

EEC No: 201-297-1

Hazards Identification:

Description of Dangers

F Highly flammable Xi Irritant

Special guidelines concerning dangers to humans and the environment

When heated, formation of explosive vapour / air mixtures

Danger of bursting of closed systems to vigorous exothermic polymerization. Avoid uncontrolled polymerization.

n.a= not applicable; n.d.= not defined; * = change

Boydur® Marker 663

First- aid measures

- General information

Bring affected persons out of danger area.

Remove contaminated or saturated clothing immediately.

- Following inhalation:

Bring affected person outside and ensure that he/sh is comfortable.

Employ artificial respiration if breathing cases.

Supply with medical care.

- Following contact with skin

On skin contact, rinse thoroughly with water and soap

With Continuous skin irritation, consult doctor.

- Following eye contact:

Rinse thoroughly immediately with plenty of water for at least 5 minutes keeping eyelid open.

Further treatment by eye doctor.

- If substance has been swallowed

Consult doctor immediately.

- Instructions for the doctor

Following inhalation

Beta methasone dosage aerosol spray

Paraffinum subliquidum

Fire-fighting measures

- Suitable extinguishing substances

Mist, quenching foam, quenching powder, carbon dioxide.

- Unsuitable extinguishing substances

Water, full jet

- Particular danger caused by material, its combustion products or gases produced
In case of combustion or decomposition of the product, the fumes produced lead to irritations or inflammations of the respiratory tract.

Formation of flammable or explosive vapour / air mixtures possible.

Usual measures for chemical fires.

Fire residues should be disposed of in accordance with the regulations.

Water used to extinguish fire should not enter drainage systems, soil, or stretches of water.

Boydur® Marker 663

- Special protective equipment

In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit. In case of fire cool containers or take them to a safe place. Danger of polymerization.

Accidental release measures

- Personal precautionary measures

Keep persons at a distance and stay on the weather side. Wear personal protective equipment; see section 8. Avoid contact with Product.

- Measures for environmental protection:

Do not allow entrance in sewage water stretches of water drainage systems.

- Procedure for cleaning / absorption

Remove all sources of ignition.

Ensure explosion proof ness.

Isolate and seal of f defective containers immediately. (check, dam up, cover up)

Absorb with liquid-binding material (e.g. inert absorbent sand universal binder)

Absorb mechanically with suitable device and collect in a suitable container.

Handling and storage

- Handling

Always close container tightly after removal of product.

Protect from contamination heat sun rays.

Keep away from sources of ignition- No Smoking

- Directions for safe Handling

Product is supplied in stabilized form.

Stir and shake well before use.

Open container carefully as it may be pressurized.

Local ventilation if necessary.

Boydur® Marker 663

- Directions on fire and explosion safety

Highly flammable

Caution- electrostatic charge may occur.

Keep away from sources of ignition. Do not smoke.

danger of explosion.

Water used to extinguish fire should not enter drainage systems, soil, or stretches of water.

Ensure there are sufficient retaining facilities for water used to extinguish fire.

Contaminated fire extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities.

Fire residues should be disposed of in accordance with the regulations.

Explosion- proof installations required.

- Storage

Keep container tightly closed and store in a dry, well- ventilated place. Storage capability limited; dependent on Storage temperature.

Maximum storage period: 6 Months

- Requirements for storage rooms:

Ensure there is good room ventilation.

Maximum storage temperature: 25 ° C

Exposure controls / personal equipment

- Additional directions on design of technical equipment

Ensure suitable suction /aeration at the work place and with the operational machinery.

- Components with work place related limits to be monitored

Name of substance: Methyl methacrylate

Cas- No: 80-62-6

Index-No: 607- 035- 00-6

Limits Values Unit

Methyl methacrylate

Mel (GB) 100 ml/ m3 = 410 mg/ m3 (1993)

TLV/TWA (USA) 100 ml/ m3 = 410 mg/ m3 (1993)

Boydur® Marker 663

- Personal protective equipment

Measures for general protection and hygiene

No eating' drinking' smoking, or snuffing tobacco at work.

Wash face and / or hands before break and end of work.

If the limits at the workplace are exceeded and / or larger amounts are released (leakage, spilling, etc.) the indicated respiratory protection should be used.

Avoid contact with skin and eyes.

If there is the possibility of skin/eye contact the indicated hand/eye/body protection should be used.

- Respiratory protective equipment:

If workplace exposure limit is exceeded apply Respiratory protective equipment independent of surrounding air.

- Hand protection:

Wear protective gloves made of latex or rubber

- Eye Protection:

Basket-shaped glasses

- Body Protection

Protective clothing, antistatic and flame resistant

Change work clothes that have been moistened or saturated with product.

Physical and chemical properties

Description:

In its composition Boydur® Marker 663 corresponds to Boydur® Marker 661.

The resin does not contain any accelerator since it is used in combination with the hardener in the 1:1 spray system (B-Component).

For applying, spraying machine s with 1:1 dosing system are used. The advantages of this system are the simple dosing and the indifference to small deviations in the mixing ratio. The airless pumps and mixers are small and therefore can be easily attached to existing machines.

The application temperatures: Between 5°C-40°C

Boydur® Marker 663

Properties:

- Trouble-free processing
- Quick hardening
- Different layer thicknesses
- Mounted system
- High flexibility
- Highly resistant to weather and road salts
- Little tendency to accumulate dirt

Att:

While it is a 2 components product, it needs experience for application.

Technical Properties:

Delivery form:	Liquid
Outflow time at 23 °C:	90-110 s/4 mm.
Density at 20 °C:	0.98 g/cm ³
Refractive index:	1.44
Colour number:	Apha <50
Flash Point:	+11°C
Shelf life:	at least 6 months

Boydur® 663

Stability and reactivity

Danger of bursting of closed systems to vigorous exothermic polymerization. Avoid uncontrolled polymerization.

- Conditions to be avoided

Product polymerizes on contact with radical generating substances such as peroxides, azo compounds, heavy metal compounds and solutions.

- Additional guidelines:

Product is supplied in stabilized form.

Toxicological information

No results of animal experiments with this preparation are available.

The following data refers to the subsequently named constituents.

Methyl methacrylate

Acute oral toxicity; LD 50= 7872 mg/ kg, rat, literature

Acute dermal toxicity: LD 50> 9 400 mg/ kg, rabbit, literature

Acute inhalation toxicity: LC 50= 29.5 mg/1/ 4h, rat, literature

Primary irritative effect to skin: non-irritative, rabbit, OECD 404

- Further Information

Following years of experience, upon proper handling no detrimental effects have become known.

Ecological data:

No ecotoxicological studies are available.

The following data refers to the subsequently named constituents.

Methyl methacrylate

Environmental hazard

Classification by Federal Environmental Agency (Germany): group III

“ Material with, based on current knowledge’ low potential for hazard.”

- Data on elimination (Persistence and degradability)

Methyl methacrylate

Degradation (28 Days)= 33.7 %, not easily biodegradable, OECD 301 C.

- Behavior in environmental fields

Air contamination causes unpleasant odour.

Methyl methacrylate Odour threshold: 0.5 until 5 mg/ m³

Boydur® 663

- Eco-Toxic effect Methyl methacrylate

Bacterial toxicity:

Pseudomonos putida, initial inhibition of cell multiplication at > 100 mg/l, evaluation of water-pollutive substances; UBA

- Aquatic toxicity:

Acute fish toxicity: LC 50 (48 h) = 350 mg/ l, Leuciscus idus melanotus, literature.

Disposal Considerations

- Product

Recommended

Must be brought to an authorized special waste incineration plant in accordance with the regulations on special waste following according to local regulations. European waste catalogue(EWC)

07 02 99: Wastes not otherwise specified

Can be disposed of with domestic refuse following polymerization in accordance with the necessary technical regulations following consultation with waste disposal expert(s) and the responsibly authorities,

European waste catalogue (EWC)

17 02 03: Plastic

Bring decontaminated packaging to local recycling center

- Recommended cleaning agent

Acetone, Ethylacetate

Transport Information

Dangerous according to the transport regulations

GGVS/ GGVE/RID/ADR/ IMDG Code/ ICAO-TI

yes

Surface transport ADR/ RID/ GGVS/ GGVE

Classification

Class 3 Number 3 Letter b)

Danger Labels

No 3 (2) N° (3) N° (4) N°

Boydur® 663

Orange warning plate 339/1247

Listed good according to art 7 GGVS no

Listed good according to art 7 aGGVS no

Accident data sheet Rail 30.039

Name of product (proper shipping name surface transport) contains methyl methacrylate ' stabilized

Loading instructions/ comments

- Road (National)

Measures a sper marginal note 2300 (6) GGVS/ADR and 300 (6) GGVE/RID have been applied.

- Road (International)

Measures a sper marginal note 2300 (6) GGVS/ADR and 300 (6) GGVE/RID have been applied.

- Rail (National)

Measures a sper marginal note 2300 (6) GGVS/ADR and 300 (6) GGVE/RID have been applied.

- Rail (International)

Measures a sper marginal note 2300 (6) GGVS/ADR and 300 (6) GGVE/RID have been applied.

Transport by vessel IMDG Code /GGVSee
Clasification

Class 3.2 Un- No 1247 Packagng Group II

Danger Labels

Label 3 Label(2) Label (3) Label(4)

Danger of water Pollution

Emergency action

EmS 3-07 EmS (2)

MFAG 330 MFAG (2)

- Proper Shipping Name

Methylmethacrylate, monomer, inhibited, solution

Remarks

Keep away from accomodation and communal rooms.

Boydur® 663

- Air Transport ICAO-TI/IATA-DGR

Classification

Class 3 Un-No 1247 Packaging Group II

Danger Labels

Label 3 Label (2) Label (3) Label (4)

- Proper Shipping Name

Methylmethacrylate, monomer, inhibited, solution

Remarks

Drill 3L

- Inland Navigation ADN/ADNR

The transport classification for inland navigation has not yet been determined; please consult us before shipment is necessary.

Regulatory Information

Labeling of preparation in line with EC Directive (in accordance with supplement II of directive on preparations 88/379/EEC)

- Index Letter and indication of danger posed by product

F Highly flammable

Xi Irritant

- Hazardous component(s)

Methylmethacrylate

- R-phrases

R 11-36/37/38-43

Highly flammable

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

- S- Phrases

S 9-16-29-33

Keep Container in a well-ventilated place.

Keep away from sources of ignition-No smoking.

Do not empty into drains.

Take precautionary measures against static discharges.

Boydur® 663

If preparation is feely available (public product) , the following additional safety advise is required.:

S2

Keep out reach of children

- National Regulations

Observe national regulations.

Other Information:

Further information on properties and safe handling of product can be obtained from the product brochures.

Boytorun Kimya Sanayi A.S.

İ.E.T.T. Sit., 3. Blok,D: 1, Emirgan- 34467- Istanbul- TR.

Emergency Call: 0090-212- 229 18 29- 2 29 18 34

Fax: 0090-212-229 18 59, E-Mail: info@boytorun.com