



## MATERIAL SAFETY DATA SHEET

PRODUCT NUMBER: 11 10 41 and 11 10 49

### SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

SUPPLIER: METPREP LTD.  
CURRIERS CLOSE  
CHARTER AVENUE  
COVENTRY CV4 8AW

TELEPHONE: 024 7642 1222  
FAX: 024 7642 1192

PRODUCT: Tri-Hard Powder

### SECTION 2 HAZARDS IDENTIFICATION



GHS02 flame

**Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2

H319 Causes serious eye irritation. Skin Sens. 1

H317 May cause an allergic skin reaction.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

**1999/45/EC**

R20: Harmful by inhalation.



Xi; Irritant

R36/38: Irritating to eyes and skin.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

R10: Flammable.

**Information concerning particular hazards for human and environment:** 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.

**Classification system:** The classification is according to the latest editions of the EU-lists, and extended by company and literature data.



· **Label elements · Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation. ·

**Hazard pictograms** GHS02, GHS07, GHS08 ·

**Signal word** Danger

· **Hazard-determining components of labelling:** methyl methacrylate styrene

· **Hazard statements** H226 Flammable liquid and vapour. H315

Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H372 Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements** P210 Keep away from heat/sparks/open flames/hot surfaces. -No smoking. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards · Results of PBT and vPvB assessment ·**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**SECTION 3 Composition/information on ingredients**

**Chemical characterization: Mixtures ·**

**Description:** Preparation based on methyl methacrylate and styrene

· <b>Dangerous components:</b>		
CAS: 100-42-5 EINECS: 202-851-5	styrene Xn R20; Xi R36/38 R10	25-50%
	Flam. Liq. 3, H226; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate Xi R37/38; Xi R43; F R11	10-25%
	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	



## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

**After inhalation** Take affected persons into fresh air and keep quiet. ·

**After skin contact** Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

**After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing** Rinse out mouth and then drink plenty of water.

### Information for doctor

**Most important symptoms and effects, both acute and delayed** No further relevant information available. ·

**Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## SECTION 5 FIRE FIGHTING MEASURES

### Extinguishing media

**Suitable extinguishing agents** Water spray Fire-extinguishing powder Foam Carbon dioxide

**For safety reasons unsuitable extinguishing agents** Water with full jet. ·

**Special hazards arising from the substance or mixture** organic products of decomposition ·

**Advice for firefighters · Protective equipment:** Wear self-contained respiratory protective device. ·

### Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13.

**Reference to other sections** See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## SECTION 7 ACCIDENTHANDLING AND STORAGE

### Handling

**Precautions for safe handling** Keep away from heat and direct sunlight. Keep receptacles tightly sealed. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

**Information about fire -and explosion protection:** Use only in explosion protected area. Keep ignition sources away -Do not smoke. Protect against electrostatic charges.

### Conditions for safe storage, including any incompatibilities ·

#### Storage

**Requirements to be met by storerooms and receptacles:** Storage between 10 °C and 25 °C. ·

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

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s)** No further relevant information available.



**SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION**

**Additional information about design of technical facilities:** No further data; see item 7. **Control**

<b>· Ingredients with limit values that require monitoring at the workplace:</b>	
<b>100-42-5 styrene</b>	
WEL	Short-term value: 1080 mg/m <sup>3</sup> , 250 ppm Long-term value: 430 mg/m <sup>3</sup> , 100 ppm
<b>80-62-6 methyl methacrylate</b>	
WEL	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm

**parameters**

**Exposure controls ·**

**Personal protective equipment**

**General protective and hygienic measures.**

Do not eat, drink, smoke or sniff while working. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

**Respiratory protection:** Use suitable respiratory protective device when high concentrations are present. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Filter A/P2.

**Protection of hands:** Protective gloves.

**Material of gloves** PVA gloves Butyl rubber, BR Nitrile rubber, NBR

**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.

**Eye protection:** Tightly sealed goggles.

**Body protection:** Solvent resistant protective clothing (Only when handling large quantities)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>· Information on basic physical and chemical properties ·</b>
<b>General Information ·</b>
<b>Appearance: Form:</b> Fluid <b>Colour:</b> Yellowish ·
<b>Odour:</b> Characteristic ·
<b>Odour threshold:</b> Not determined.
<b>· pH-value:</b> Not determined.
<b>· Change in condition Melting point/Melting range:</b> undetermined
<b>Boiling point/Boiling range:</b> 101 °C
<b>· Flash point:</b> 26 °C

<b>· Flammability (solid, gaseous)</b> Not applicable.
<b>· Ignition temperature:</b> 430 °C



· <b>Decomposition temperature:</b> Not determined.
· <b>Self-igniting:</b> Product is not selfigniting.
· <b>Danger of explosion:</b> Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits: Lower:</b> 1.2 Vol % <b>Upper:</b> 12.5 Vol %
· <b>Vapour pressure at 20 °C:</b> 47 hPa
· <b>Density at 20 °C:</b> 1.1 g/cm <sup>3</sup> · <b>Relative density</b> Not determined. · <b>Vapour density</b> Not determined. · <b>Evaporation rate</b> Not determined.
· <b>Solubility in / Miscibility with Water:</b> Slightly soluble
· <b>Partition coefficient (n-octanol/water):</b> Not determined.
· <b>Viscosity: dynamic:</b> Not determined. <b>kinematic:</b> Not determined. · <b>Other information</b> No further relevant information available.

## SECTION 10

## STABILITY AND REACTIVITY PROPERTIES

### Reactivity

#### · Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** Exothermic polymerization ·

**Conditions to avoid** No further relevant information available. ·

#### **Incompatible materials:**

In presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.

**Hazardous decomposition products:** Danger of forming toxic pyrolysis products

## SECTION 11

## TOXICOLOGICAL INFORMATION

### · Information on toxicological effects

#### · Acute toxicity:

#### · LD/LC50 values relevant for classification:

methyl methacrylate LD-50 oral >5000 mg/kg rat (lit.) LD-50 inhalativ 7093 ppm/4h rat (lit.)

100-42-5 styrene		
Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

### Primary irritant effect: ·

**on the skin:** Irritant to skin and mucous membranes. ·

**on the eye:** Irritating effect. ·

**Sensitization:** Sensitization possible through skin contact.



**Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. Harmful Irritant

## SECTION 12

## ECOLOGICAL INFORMATION

· **Toxicity** ·

**Aquatic toxicity:** No further relevant information available. ·

**Type of test Effective concentration Method Assessment**

Toxicity to fish (MMA): LC-50 (96 h) = 191 mg/l *Lepomis macrochirus*

Toxicity to micro-organisms (styrene): 16 h 72 mg/l *Pseudomonas putida* incipient inhibition of cell division ·

**Persistence and degradability** No further relevant information available. ·

**Behaviour in environmental systems:** ·

**Bioaccumulative potential** No further relevant information available. ·

**Mobility in soil** No further relevant information available. ·

**Additional ecological information: · General notes:**

Water hazard class 2 (German Regulation) (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.

· **Results of PBT and vPvB assessment** ·

**PBT:** Not applicable. ·

**vPvB:** Not applicable. ·

**Other adverse effects** No further relevant information available.

## SECTION 13

## DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Recommendation** After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

07 01 04*	other organic solvents, washing liquids and mother liquors
-----------	------------------------------------------------------------

· **Uncleaned packaging:** ·

**Recommendation:** Packagings that may not be cleansed are to be disposed of in the same manner as the product. ·

**Recommended cleansing agents:** Ethyl acetate

## SECTION 14

## TRANSPORT INFORMATION

· **UN-Number · ADR, IMDG,**



**IATA** UN1866

· **UN proper shipping name ·**

**ADR · IMDG, IATA**

1866 RESIN SOLUTION (not viscous) RESIN SOLUTION



· <i>Transport hazard class(es) · ADR · Class · Label</i>		<i>3 (F1) Flammable liquids. 3</i>
· <i>IMDG, IATA · Class · Label</i>		<i>3 Flammable liquids. 3</i>
· <i>Packing group · ADR, IMDG, IATA</i>	<i>III</i>	
· <i>Environmental hazards: · Marine pollutant:</i>	<i>No</i>	
· <i>Special precautions for user · Danger code (Kemler): · EMS Number:</i>	<i>Warning: Flammable liquids. 30 F-E,S-E</i>	
· <i>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</i>	<i>Not applicable.</i>	
· <i>Transport/Additional information:</i>		
· <i>ADR</i>		
· <i>Limited quantities (LQ)</i>	<i>5L</i>	
· <i>Transport category</i>	<i>3</i>	
· <i>Tunnel restriction code</i>	<i>D/E</i>	
· <i>UN "Model Regulation":</i>	<i>UN1866, RESIN SOLUTION (not viscous), 3, III</i>	

**SECTION 15**

**REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture ·  
National regulations

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.

· **Technical instructions (air):**

Class	Share in %
NK	50-75

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water. ·  
**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.



## SECTION 16

## OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

R10 Flammable.

R11 Highly flammable.

R20 Harmful by inhalation.

R36/38 Irritating to eyes and skin.

R37/38 Irritating to respiratory system and skin.

R43 May cause sensitisation by skin contact.