

Material Safety Data Sheet Acetal Homopolymer Products of ZL Engineering Plastics, Inc.

1. Product and Company

ZL Products:

ZL® 900H Acetal Homopolymer-Natural ZL® 900H Acetal Homopolymer-Black

Manufacture:

ZL Engineering Plastics, Inc.

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2. Composition/Information on Ingredients

Stock shapes manufactured of extruded Polyoxymethylen-Homopolymer, possibly stabilizing agents, pigments, fillers, additives.

CAS - number: Not required.

3. Possible Hazards

Formaldehyde

4. First Aid Measures

If formaldehyde vapor is inhaled, remove person to fresh air and keep him warm. If necessary call physician. Immediately inhale corticosteroid dose aerosol (e.g. dexamethazone).

On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open. On ingestion: No special measures necessary. Burns caused by molten material require hospital treatment.

5. Fire Fighting Measures

Suitable extinguishing agents: Water, foam, dry extinguishing media.

Additional Information: The following can be given off in a fire: carbon dioxide (CO2), carbon monoxide, monomers, other degradation products.

Dispose of fire debris and contaminated extinguishing water in accordance with local regulations. Necessary Protective Gear: In case of fire, wear a self contained breathing apparatus.

6. Measures in case of Accidental Release

Not applicable.

7. Handling and Storage

Gaseous products of degradation can be given off if the product is greatly overheated including monomers and other degradation products. Avoid inhalation of vapor. Processing machines must be fitted with local exhaust ventilation. Protection against fire and explosion: No special measures necessary provided product is used correctly. During decanting operations, containers should be earthed against electrostatic charge. Storage: Keep in a dry place. Unlimited storage possible.

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8. Exposure Limits

Components with workplace control parameters: Formaldehyde, CAS-No. 50-00-0. MAK: 0.5 ml/m3 (Germany). TRGS 905 (Germany) category: 3. Given suitable ventilation, it can be assumed that the threshold limits will not be reached. Personal protective equipment: Respiratory—When workers face concentrations above the exposure limit, they must use appropriate certified respirators. Hand protection – protective gloves. Eye protection – safety glasses.

9. Physical and Chemical Properties

Appearance Form: Solid as semi-finished (plate, rod, tube) at 20°C

Color: White, black or colors

Odor: Formaldehyde Change in Physical State: Melting point: 172° – 184°C

10. Stability and Reactivity

Conditions to Avoid: To avoid thermal decomposition, do not overheat. Avoid temperatures above 230°C.

Substances to Avoid: Protect against inorganic acids, e.g. hydrochloric acid, sulphuric acid etc. (may react violently, Formation of: e.g. formaldehyde). Do not process in conjunction with PVC or other plastics possessing halogen fireproofing.

11. Toxicological Information

In our experience and according to information available to us, the product is not harmful to health provided if it is correctly handled and processed according to the given recommendations.

12. Ecological Information

Elimination information: No data available, insoluble in water

Behavior and environmental fate: Due to the consistency of the product, and its insolubility in water, it will apparently not be bioavailable. Ecotoxicity: Due to the consistency of the product, dispersion into the environment is impossible. Therefore no negative effects on the environment may be anticipated based on the present state of knowledge.

13. Disposal Information

Check for possible recycling. Can be dumped with domestic refuse or incinerated in suitable plants in accordance with local regulations.

14. Transport Information

Not classified as hazardous under transport regulation.

15. Rules

WARNING: This product can expose you to chemicals including Formaldehyde (CAS 50-00-0), which is known to the State of California to cause cancer and Hexchlorobenzene (CAS 118-74-1) which is known to the state of California to cause reproductive harm. For more information, go to www.P65Warnings.ca.gov.

16. Special Information

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.