



GOOD HOUSEKEEPING

When machining magnesium, good housekeeping in the workshop is very important. Chips should not be allowed to collect on or inside the equipment being used or on the floor surrounding the machine. Collected chips increase the risk of fire. Machines should be kept clean.

SEGREGATION

Magnesium chips, raspings, and turnings should never be mixed with fines of other materials. Segregation of metal fines is crucial for safety and recycling.

LUBRICANT REMOVAL

Ideally, fluid and chips should be separated as soon as possible after machining. Centrifuge, hydrocyclone, compaction or briquetting help reduce the hazards associated with the storage and handling of wet magnesium chips.

CHIP STORAGE

Chips should never be stored in sacks. Examples of suitable storage equipment are type 1A2 UN approved steel drums with removable lids.



Wet or oily chips - These should be placed in covered but well-ventilated non-combustible containers, such as Type 1A2 UN-approved steel drums. Vents allow hydrogen gas to escape and reduce the chance of pressure buildup. The containers must be clearly labeled and stored from sources of ignition. Drums should not be stacked. The area must be well ventilated to avoid the buildup of hydrogen gas. Covered outdoor storage is preferred.

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FIRE PRECAUTION

Bulk magnesium is extremely difficult to light but fines (chips, swarf, and turnings) can potentially ignite. In case of a fire, lit magnesium fines should be covered in dry sand, graphite powder, or with a Class D extinguisher to suppress its access to oxygen. Smothered fines should be left undisturbed until completely out to prevent flareups caused by reintroduced oxygen. Water should never be used on any metal-based fire as it can worsen the flames.

CLASS D FIRE EXTINGUISHER



Dry chips - should be placed in dry, closed, non-combustible containers, such as UN approved drums. Drums and their contents should be kept dry, clearly labeled, and separate from other flammable materials or ignition sources.

Chips lightly coated in mineral oil can be stored the same way as dry chips.