Material Safety Data Sheet

Acc. to OSHA and ANSI Printing date 02/03/2000

Reviewed on 04/15/2019

1 Identification of substance:

Product details:

Trade name: TSR DISC

Manufacturer/Supplier:

Manufacturer: MHI Inc. 750 Redna Terrace Phone: 513-772-0404

Emergency Phone: 513-772-0404

Website: www.mhi-inc.com

Emergency information:

MHI Inc.

2 Composition/Data on components:

Chemical characterization:

Description: aluminum oxide aluminum hydroxide oxide water

3 Hazards identification

Hazard description: • Not applicable Information pertaining to particular dangers for man and environment Not applicable

4 First aid measures

After inhalation if soild is powdered Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

5 Fire fighting measures

Suitable extinguishing agents

Product is not flammable. Use fire fighting measures that suit the surrounding fire.

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Additional information:

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling

Information for safe handling:

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

No special precautions are necessary if used correctly.

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:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Aluminum oxide mg/m3 (when TSR disc is powdered)

ACGIH TLV 10: A4 Belgium TWA 10 Denmark 10 France TWA 10

Germany TWA 1.5 (respirable fraction of the aerosol)

5 (respirable dust) Ireland TWA

10 (total inhalable dust)

Netherlands TWA 10 (inhalable) 4-STEL

Russia TWA

Switzerland TWA 6

OSHA PEL 5 (respirable fraction)

15 (total dust)

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:

Form: Solid. Color: White

Odor: Not determined

Value/Range Unit Method

Change in condition

Melting point/Melting range: Not determined Boiling point/Boiling range: Not determined Sublimation temperature / start: Not determined

Flash point: Not applicable

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion:

Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined Upper: Not determined

Vapor pressure: Not determined

Density: Not determined

Solubility in / Miscibility with

Water: Fully miscible

10 Stability and reactivity

Aluminum Oxide is generally considered chemically inert

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals.

Dangerous reactions No dangerous reactions known

11 Toxicological information

Acute toxicity: None known

Aluminum oxide has caused tumors and neoplasms in experimental animals via implant.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations for proper disposal.

Uncleaned packaging's:

Recommendation:

Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID (cross-border)

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information:

Not dangerous according to the above specifications.

15 Regulations

Product related hazard information's:

Observe the general safety regulations when handling chemicals

National regulations

All components of this product are listed in the U.S. Environmental

Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

Information about limitation of use: For use only by technically qualified individuals.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.