

Spent Catalyst (Aluminum)

SECTION 1. IDENTIFICATION

Product Identifier	Spent Catalyst (Aluminum)
Other Means of Identification	Used catalyst, catalyst dust
Product Family	Process Materials
Recommended Use	Process waste.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	Keyera Corp. Suite 200, The Ampersand, West Tower 144 - 4th Avenue SW Calgary, Alberta T2P 3N4
Emergency Phone No.	Keyera Corp., 1-403-205-8300, (24 hr)

SECTION 2. HAZARD IDENTIFICATION

Classification

Combustible dust - Category 1; Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 2

Label Elements



Signal Word:
Warning

Hazard Statement(s):

Causes mild skin irritation.
May cause respiratory irritation.

Prevention:

Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Use explosion-proof electrical, ventilating, and lighting equipment.
Take precautionary measures against static discharge.
Do not breathe dusts or mists.
Avoid release to the environment.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.

Response:

IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
IF ON SKIN: Wash with plenty of water.

Product Identifier:	Spent Catalyst (Aluminum)
Date of Preparation:	June 20, 2024
Date of Last Revision:	June 20, 2024

Spent Catalyst (Aluminum)

IF INHALED: Call a POISON CENTRE or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

Store in accordance with local, regional, national and international regulations.
Store in a dry place. Store in a closed container.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

General Hygiene Comments :

Do NOT eat, drink or store food in work areas.

Remove contaminated clothing and protective equipment before entering eating areas or leaving work area.

Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Aluminum oxide containing hydrocarbon residues	1344-28-1	100	Not applicable
Aluminum	7429-90-5	42.0 - 43.0	Aluminum
Other metals	Not available	1.00 - 1.25	Not applicable
Carbon	7440-44-0	2.25 - 2.75	Carbon

Notes

Concentrations are expressed in % weight/weight.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Wash with soap and water. If persistent irritation occurs, obtain medical attention.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.

Ingestion

Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the likelihood of aspiration.
Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Immediate Medical Attention and Special Treatment

Target Organs

No information was located.

Product Identifier: Spent Catalyst (Aluminum)

Date of Preparation: June 20, 2024

Date of Last Revision: June 20, 2024

Spent Catalyst (Aluminum)

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation.

Special Protective Equipment and Precautions for Fire-fighters

Wear protective eyewear, gloves, and clothing.

See Special Protective Equipment and Precautions for Fire-fighters in Section 5 (Fire Fighting Measures) for advice on suitable protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency eye wash stations and safety showers should be readily available in the vicinity of use or handling. Ensure adequate ventilation. Avoid contact with eyes, skin, or clothing.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Avoid dry sweeping. If necessary, use a dust suppressant such as water. Do not use compressed air for clean-up. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid generating dusts. Prevent uncontrolled release of product. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do not use compressed air for filling, discharging, or handling operations.

Conditions for Safe Storage

Store in a well ventilated area away from all sources of ignition. Avoid storage in confined spaces or near incompatible materials, oxidizers, or materials that support combustion.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this material contain explosion relief vents or an explosion suppression system, or be handled in an oxygen deficient environment. Ensure that dust handling systems (exhaust ducts, dust collectors, processing equipment, and storage vessels) are designed to prevent the release of dust into work areas.

Product Identifier:	Spent Catalyst (Aluminum)
Date of Preparation:	June 20, 2024
Date of Last Revision:	June 20, 2024

Spent Catalyst (Aluminum)

Individual Protection Measures

Eye/Face Protection

Wear safety glasses or chemical safety goggles, or other suitable eye and face protection as required.

Skin Protection

Wear appropriate gloves to prevent skin exposure. Wear appropriate clothing to prevent skin exposure.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Black fine powder.

Other Information

Physical State Solid

Bulk Density 740 kg/m³

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not sensitive to mechanical impact.

Chemical Stability

Normally stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid

Avoid allowing dust particles to accumulate in the air. Although not considered flammable, the risk of a dust cloud explosion is possible.

Incompatible Materials

May react with: strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

May be irritating to skin. Symptoms may include redness, swelling, and itching.

Serious Eye Damage/Irritation

May be irritating to eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Product Identifier: Spent Catalyst (Aluminum)

Date of Preparation: June 20, 2024

Date of Last Revision: June 20, 2024

Spent Catalyst (Aluminum)

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Can irritate the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Skin Absorption

Not an expected route of exposure.

Ingestion

Aluminium oxide ingestion is rare and does not lead to significant toxicological problems.

Aspiration Hazard

Symptoms may include coughing, choking, shortness of breath, difficult or rapid breathing, and wheezing.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

Carcinogenicity

No information was located.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Not expected to be harmful.

Persistence and Degradability

Readily degradable in the environment.

Bioaccumulative Potential

This product is not known to bioaccumulate.

Product Identifier: Spent Catalyst (Aluminum)

Date of Preparation: June 20, 2024

Date of Last Revision: June 20, 2024

Spent Catalyst (Aluminum)

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	Not applicable	Not Regulated	None	Not applicable
US DOT	Not applicable	Not Regulated	None	Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

This section is not required by WHMIS.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 0** **Instability - 0**

SDS Prepared By Bureau Veritas Canada
Phone No. 1-800-386-7247

Date of Preparation June 20, 2024
Date of Last Revision June 20, 2024

Revision Indicators Not applicable

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
 OSHA = US Occupational Safety and Health Administration
 RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
 HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Product Identifier: Spent Catalyst (Aluminum)
 Date of Preparation: June 20, 2024
 Date of Last Revision: June 20, 2024

Spent Catalyst (Aluminum)

Disclaimer

This SDS provides safety information and was developed for employees, customers and agents of Keyera Partnership from data obtained from the sample(s) submitted to Bureau Veritas Canada for analysis. The information may not be valid or complete if the product or material is used in combination with other products or materials, or in any process. This information is intended for reasonable normal usage and recommended practices, and to underscore the potential hazards that may be inherent to the nature of the product or material. Although every effort is made to ensure accuracy and completeness of the contained information, it is understood that Bureau Veritas Canada makes no warranty as to the accuracy or completeness of information and assumes no liability for any damage or loss suffered as result of any inaccuracy or incompleteness therein. This information is considered to be as accurate as possible, as of the date of preparation. The reader is invited to contact Keyera Partnership at the address shown to ensure the information is up to date or to obtain further information related to normal product use, or any unusual or other use.

SDS representative sample(s) :

Alberta Enviro Fuels (AEF) Facility

Product Identifier: Spent Catalyst (Aluminum)
Date of Preparation: June 20, 2024
Date of Last Revision: June 20, 2024

Page 07 of 07