SAFETY DATA SHEET

Product Name: Olivine

Product Description: Foundry Sand or Abrasive Particles

1. IDENTIFICATION

1.1. Product Identifier

Product Name - Olivine

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) Used as abrasive particles for grinding or blasting

1.3. Details of the supplier of the safety data sheet

Company Name:	AGSCO Corporation	Emergency number: 847-520-4455
Address:	160 West Hintz Road	Information number: 847-520-4455
	Wheeling Illinois 60090	Date prepared: March 2020

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008 and in Directive 67/548/EEC.

Depending on the type of handling and use (e.g. grinding, drying), airborne respirable dust may be generated. Prolonged and/or massive inhalation of respirable dust may cause mucous membrane and respiratory irritation and lung injury. Principal symptoms are shortness of breath and reduced pulmonary function. Occupational exposure to respirable dust should be monitored and controlled.

This product should be handled with care to avoid dust generation
Regulation EC 1272/2008: No classification
Classification EU (67/548/EEC): No classification

2.2. Label elements

None

2.3. Other hazards

This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Main constituent: Olivine

Amount:	Olivine: 100%
EINECS:	215-281-7
CAS:	1317-71-1

3.1. Impurities : None

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact: Rinse with copious quantities of water and seek medical attention if irritation persists.

Inhalation: Movement of the exposed individual from the area to fresh air is recommended.

Ingestion: No first-aid measures required.

Skin contact: No special first aid measures necessary.

4.2. Most important symptoms and effects both acute and delayed

No acute and delayed symptoms and effects are observed.

4.3. Indication of any immediate medical attention and special treatment needed

No specific actions are required.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

No specific extinguishing media is needed.

5.2. Special hazards arising from the substance or mixture

Non-combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters

No specific fire-fighting protection is required.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

6.2. Environmental precautions

No special requirements.

6.3. Methods and material for containment and cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4. Reference for other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.

7.1.2. Do not to eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Precautions:

Minimize airborne dust generation and prevent wind dispersal during loading and unloading.

Keep containers closed and store packaged products so as to prevent accidental bursting.

7.3. Specific end use(s)

If you require advice on specific uses, please contact your supplier.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust).

The OEL (Occupational Exposure Limit) for respirable dust is 4 mg/m³ in UK, measured as an 8 hour TWA (Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organizational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

8.2.2. Individual protection measures, such as personal protective equipment

a) Eye / face protection: Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

b) Skin protection: No specific requirement. For hands, see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.

c) Hand protection: Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

d) Respiratory protection: In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of European or national legislation.

8.2.3. Environmental exposure controls

Avoid wind dispersal.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance:	Pale-green powder, granular particles or aggregates
b) Grain shape:	Sub-angular
c) Odor:	Odorless
d) Odor threshold:	Not relevant
e) pH (400 g/l WATER AT 20ºC):	8.9-9.5
f) Melting range:	1400-1700°C
g) Specific density:	3.3 g/cm³
h) Solubility in water:	Negligible
i) Solubility in hydrofluoric acid:	Yes

9.2. Other information

a) Angle of repose:	approx. 45º
b) Stowage factor:	0.54 m^3 (19 ft^3 /t)

10. STABILITY AND REACTIVITY

10.1. Reactivity

Inert, not reactive.

10.2. Chemical stability

Chemically stable.

10.3. Possibility of hazardous reactions

No hazardous reactions.

10.4. Conditions to avoid

Not relevant

10.5. Incompatible materials

No particular incompatibility.

10.6. Hazardous decomposition products

Not relevant.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a) Acute toxicity: Based on available data, the classification criteria are not met.
b) Skin corrosion/irritation: Based on available data, the classification criteria are not met.
c) Serious eye damage/irritation: Based on available data, the classification criteria are not met.
d) Respiratory or skin sensitization: Based on available data, the classification criteria are not met.
e) Germ cell mutagenicity: Based on available data, the classification criteria are not met.
f) Carcinogenicity: Based on available data, the classification criteria are not met.
g) Reproductive toxicity: Based on available data, the classification criteria are not met.
h) STOT-single exposure: Based on available data, the classification criteria are not met.
i) STOT-repeated exposure: Based on available data, the classification criteria are not met.
j) Aspiration hazard: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1. Toxicity - Not relevant
12.2. Persistence and degradability - Not relevant
12.3. Bioaccumulative potential - Not relevant
12.4. Mobility in soil - Negligible
12.5. Results of PBT and vPvB assessment - Not relevant
12.6. Other adverse effects - No specific adverse effects known

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products
Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

Packaging
Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorized waste management company.

14. TRANSPORT INFORMATION

14.1. UN Number: Not relevant

14.2. UN proper shipping name: Not relevant

14.3. Transport hazard classes

ADR: Not classified
IMDG: Not classified
ICAO/IATA: Not classified
RID: Not classified

14.4. Packing Group: Not relevant

14.5. Environmental hazards: Not relevant

14.6. Special precautions for user: No special precautions

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : Not relevant

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National legislation/requirements: - International legislation/requirements:

Regulation 1907/2006 (REACH): No classification
European Directive on Dangerous Substances 67/548: No classification
European Community Labelling: No labelling

15.2. Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V.7.

16. OTHER INFORMATION

Indication of the changes made to the previous version of the SDS

General product information:
Olivine sand is produced from the rock dunite. In the rock small amounts of fibrous minerals can be found, first of all in the mineral group of inosilicates such as pyroxene and amphiboles. A normal element analysis (chemical) reports the nickel content as NiO, and may therefore be misleading in showing the form nickel appears in the product. In olivine, nickel is relative strongly bounded in the silicate lattice and thus not bio-available.

Third party materials
Insofar as materials not manufactured or supplied by AGSCO Corporation are used in conjunction with, or instead of AGSCO Corporation materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of AGSCO Corporation olivine in conjunction with materials from another supplier.

Liability
Such information is to the best of AGSCO Corporation knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Training
Workers must be trained in the proper use and handling of this product as required under applicable regulations.