1. IDENTIFICATION

Product Identifier	**Spinel**
Synonyms:	SPINEL SP67, SPINEL SP78, SPINEL SP90
Article Number:	No other identifiers
CAS Number:	1344-28-1
Recommended Use:	Refractories, ceramics, glass and chemical industries, abrasives, polishing aids; use as an additive, filler, pigment.
Restrictions on Use:	Not known
Manufacturer/Supplier:	**GNP**Graystar Specialty Materials 37 John Glenn Dr. Amherst, NY 14228
Emergency telephone number:	716-759-6600

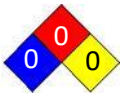
2. HAZARD(S) IDENTIFICATIONS

Classifications of the substance or mixture:	Not a hazardous substance or mixture
Label Elements	
GHS Label Elements:	The product is NOT classified as hazardous according to OSHA Globally Harmonized System (GHS) regulations within the United States.
Hazard Pictograms:	Not Regulated
Signal Word:	Not Regulated
Hazard Statements:	Not Regulated
Precautionary Statements:	Not Regulated

WHMIS- Symbols:
As of 11 February 2015, the current WHMIS system is being replaced by the GHS system. This is the classification under the older system.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Classification System:



NFPA Ratings (scale 0-4)
Health = 0
Fire = 0
Reactivity = 0

HMIS Ratings (scale 0-4)
Health = 0
Fire = 0
Reactivity = 0

Other Hazards:

Results of PBT and vPvB Assessment

PBT:	Not applicable
vPvB:	Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization:	Formula: $MgAl_2O_4$
CAS No. Description:	1302-67-6 - SPINEL
EC-NO.:	215-105-9 - SPINEL
4. FIRST-AID MEASURES	
General Information:	No special measures required
After inhalation:	Supply fresh air, consult doctor in case of complaints.
After skin contact:	Brush off loose particles. Wash with soap and water. If skin irritation is experienced, consult a doctor.
After eye contact:	Remove contacts if possible if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	Rinse out mouth and drink plenty of water. Do not induce vomiting; immediately call for medical help.
Most important symptoms and effects, both acute and delayed:	No symptoms are expected
Indication of any immediate medical attention and special treatment needed:	None
Danger:	None
5. FIRE-FIGHTING MEASURES	
	Non-flammable, but in case of other fire, see below
Extinguishing Media: Suitable Extinguishing Agents:	The product is not combustible. Use the usual extinguishing measures (carbon dioxide (CO), dry chemical, foam; water spray). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
For safety reasons unsuitable extinguishing agents:	Full water jet.
Special Hazards Arising from the Substance or Mixture:	None
Advice for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.
Additional Information:	None
6. ACCIDENTAL RELEASE MEASURES	
Personal Precautions, Protective Equipment & Emergency Procedures:	For non-emergency personnel: Use personal protective equipment (Section 8). Emergency procedures: Ensure adequate ventilation.
Environmental Precautions:	No special measures required
Methods and Material for Containment and Cleaning Up:	Collect the product and recycle it for reuse. Take up mechanically and collect in suitable container and dispose according to current regulations.
Reference to other sections:	See also Sections 8 and 13.
7. HANDLING AND STORAGE	
Precautions for Safe Handling:	Measures to prevent fire: Ensure adequate ventilation.

	Measures to prevent aerosol and dust generation: Prevent dusting. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe dust.
Information about protection against explosions and fires:	No special measure required
Requirements to be met by storerooms and receptacles:	No special requirements
Further information about storage conditions:	None.
Specific End Use(s):.	No further relevant information available**.**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

1302-67-6 SPINEL	
PEL (USA)	term value: 15*; 5** mg/m³ *Total dust; ** Respirable fraction
TLV (USA)	Long-term value: 1* mg/m³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m³ respirable, as Al
EV (Canada)	Long-term value: 10 mg/m³ total dust

Additional information: the lists that were valid during the creation were used as basis.

EXPOSURE CONTROLS	
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. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid close or long term contact with the skin. Do not inhale dust.
Engineering Controls:	No further relevant information available.
Breathing Equipment:	Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear suitable respiratory protection. Mask with dust filter (P2) or FFP2(EN 149). Wear a mask with a filter for dust/aerosols - FFP3 (EN 149). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded.
Skin Protection:	Wear gloves for the protection against mechanical hazards according to OSHA and NIOSH rules. Gloves are advised for repeated or prolonged contact.
Eye protection:	Safety glasses with side shields

Control of Environment Exposure:	Avoid dust formation
9. PHYSICAL AND CHEMICAL PROPERTIES	
Information on basic physical and chemical properties	
Physical State:	Solid
Color:	Amber
Odor:	Odorless
pH	6.0-9.5
Melting Point:	2,135 º C
Initial Boiling point	Not applicable
Flash Point	Not applicable
Density	3.0 – 3.4 g/cm³
Solubility	Insoluble
Danger of explosion:	Product does not present an explosion hazard
10. STABILITY AND REACTIVITY	
Thermal Decomposition / Conditions to be Avoided:	None under normal processing
Possibility of Hazardous Reactions:	None known.
Bio accumulative Potential:	
Incompatible Materials:	No further relevant information available.
Reactivity:	None under normal processing
Chemical Stability:	Stable under normal conditions
Hazardous Decomposition:	None known.
11. TOXICOLOGICAL INFORMATION	
Acute toxicity:	
Primary irritant effect	
On the skin:	No information
On the eye:	No information
Chronic toxicity:	No further relevant information available
Additional Toxicological Information:	The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for the Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us
Acute effects (acute toxicity, irritation and corrosively)	From product as supplied: None
Repeated Dose Toxicity:	No further relevant information available

CMR Effects (carcinogenity, mutagenicity and toxicity for reproduction)	None

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	Generally, not hazardous for water.
Persistence and degradability:	Inorganic product, is not eliminable from water by means of biological cleaning processes.
Other Adverse Effects:	None known
Bio accumulative Potential:	Does not accumulate in organisms
Mobility in soil:	No information available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Recommendation:	Smaller quantities can be disposed of with household waste. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes
Contaminated Packages:	Disposal must be made according to official regulations

14. TRANSPORT INFORMATION

Note: Not classified as a dangerous according to transport regulations.

DOT, ADR, ADN, IMDG, IATA: Not Regulated UN proper shipping name	Not regulated
DOT, ADR, ADN, IMDG, IATA Not Regulated Transport hazard class(s)	Not regulated
DOT, ADR, ADN, IMDG, IATA Class	Not regulated
Packing group DOT, ADR, IMDG, IATA	Not regulated

15. REGULATORY INFORMATION

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

Note:	Regulations apply to dust
United States Federal Regulations	
SARA	
Section 355 (extremely hazardous substances)	Substance is not listed
Section 313 (Specific toxic chemical listings):	Substance is not listed
TSCA (Toxic Substances Control Act):	All ingredients are listed
Carcinogenic Categories:	
EPA (Environmental Protection Agency):	Substance is not listed
IARC (International Agency for Research on Cancer):	Substance is not listed
TLV (Threshold Limit Value established by ACGIH):	Substance is not listed
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed

Canadian Substance Listings	
Canadian Domestic Substances List (DSL):	Substance is not listed
Canadian Ingredient Disclosure list (limit 0.1%):	Substance is not listed
Canadian Ingredient Disclosure list (limit 1%):	Substance is not listed

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of Preparation / Last Revision: 05/11/2020

Prepared by:

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KEY

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
DOT	Department of Transportation
IARC	International Agency for Research on Cancer
IMDG	International Maritime Dangerous Goods
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissble Exposure Limit
SARA	Superfund Amendment and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
Relevant Phrases	

DISCLAIMER:
User is granted the ability to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. GNP Ceramics, LLC shall not be held liable for any damage resulting from handling or from contact with the above product.