

83432-1070

SAFETY DATA SHEET



Revision date 16-Oct-2023

Revision Number 1

1. Identification

Product identifier

Product Name DL-60 Honeycomb

Other means of identification

Product Code(s) FG00859

Synonyms 39809G

Recommended use of the chemical and restrictions on use

Recommended use

Restrictions on use

Details of the supplier of the safety data sheet

Manufacturer Address

American Art Clay Co Inc
6060 Guion Road
Indianapolis, IN 46254-1222 USA
Toll Free: 1-800-999-5456
CustomerCare@Amaco.com

Emergency telephone number

Emergency Telephone U.S. Poison Control 1-800-222-1222

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

Hazard statements**Danger**

H301 - Toxic if swallowed
 H332 - Harmful if inhaled
 H350 - May cause cancer
 H373 - May cause damage to organs through prolonged or repeated exposure

**Physical state** Powder**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/clothing and eye/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see .? on this label)
 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 IF SWALLOWED: Immediately call a doctor
 Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

40.8 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 57.245 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

May be harmful in contact with skin. Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	10 - 20
Limestone	1317-65-3	5 - <10
Titanium dioxide	13463-67-7	5 - <10
C.I. Pigment Yellow 159	68187-15-5	5 - <10
Aluminum oxide (Al ₂ O ₃)	1344-28-1	3 - <5
Bentonite	1302-78-9	1 - <3
Lithium carbonate	554-13-2	1 - <3

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

Silica, cristobalite	14464-46-1	0.1 - 1
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4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. If symptoms persist, call a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Coughing and/ or wheezing. Difficulty in breathing.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust.
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FG00859 - DL-60 Honeycomb**Revision date** 16-Oct-2023**Other information** Refer to protective measures listed in Sections 7 and 8.**Methods and material for containment and cleaning up****Methods for containment** Prevent further leakage or spillage if safe to do so.**Methods for cleaning up** Pick up and transfer to properly labeled containers.**7. Handling and storage****Precautions for safe handling****Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Do not eat, drink or smoke when using this product.**Conditions for safe storage, including any incompatibilities****Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.**8. Exposure controls/personal protection****Control parameters****Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Frits, chemicals 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Mn TWA: 5 mg/m ³ except Zirconium tetrachloride Zr TWA: 0.050 mg/m ³ Pb TWA: 0.015 mg/m ³ except Nickel carbonyl Ni STEL: 3 mg/m ³ Mn STEL: 10 mg/m ³ Zr

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Limestone 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³ TWA: 2.4 mg/m ³ CIB 63 fine TWA: 0.3 mg/m ³ CIB 63 ultrafine, including engineered nanoscale
C.I. Pigment Yellow 159 68187-15-5	STEL: 10 mg/m ³ Zr TWA: 5 mg/m ³ Zr	TWA: 5 mg/m ³ Zr (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr	IDLH: 25 mg/m ³ Zr TWA: 5 mg/m ³ except Zirconium tetrachloride Zr STEL: 10 mg/m ³ Zr
Aluminum oxide (Al ₂ O ₃) 1344-28-1	TWA: 1 mg/m ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	-
Bentonite 1302-78-9	TWA: 1 mg/m ³ respirable particulate matter	-	-
Silica, cristobalite 14464-46-1	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.05 mg/m ³ respirable dust : (1/2)(250)/(100SiO ₂ + 5) mppcf TWA respirable fraction : (1/2)(10)/(100SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 25 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

No special protective equipment required.

Hand protection

Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid breathing dust/fume/gas/mist/vapors/spray.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Powder

Appearance

Color

Odor

Odor threshold

Property	Values	Remarks - Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties No information available

Oxidizing properties No information available

VOC Content (%) No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing.

Acute toxicity**Numerical measures of toxicity**

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	186.90 mg/kg
ATEmix (dermal)	2,495.00 mg/kg
ATEmix (inhalation-dust/mist)	1.85 mg/l

Unknown acute toxicity

40.8 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

57.245 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Frits, chemicals 65997-18-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	= 5.09 mg/L (Rat) 4 h
C.I. Pigment Yellow 159 68187-15-5	-	-	> 5.5 mg/L (Rat) 4 h
Aluminum oxide (Al ₂ O ₃) 1344-28-1	> 5000 mg/kg (Rat)	-	-
Bentonite 1302-78-9	> 5000 mg/kg (Rat)	-	-
Lithium carbonate 554-13-2	= 525 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	> 2.17 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

FG00859 - DL-60 Honeycomb**Revision date** 16-Oct-2023

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Titanium dioxide 13463-67-7	-	Group 2B	-	X
Silica, cristobalite 14464-46-1	A2	Group 1	Known	X

Legend**ACGIH (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Target organ effects

Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

Aspiration hazard

No information available.

Other adverse effects**Interactive effects****12. Ecological information****Ecotoxicity**

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Bentonite 1302-78-9	-	LC50: =19000mg/L (96h, Oncorhynchus mykiss)	-	-
Lithium carbonate 554-13-2	-	LC50: =30.3mg/L (96h, Oncorhynchus mykiss)	-	-

Persistence and degradability

FG00859 - DL-60 Honeycomb**Revision date** 16-Oct-2023**Bioaccumulation** There is no data for this product.**Other adverse effects** No information available.**13. Disposal considerations****Disposal methods****Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.**Contaminated packaging** Do not reuse empty containers.**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.**14. Transport information****DOT** Not regulated**UN number or ID number** UN 3077**15. Regulatory information****International Inventories****TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Frits, chemicals	65997-18-4	Present	Active
Petalite	1302-66-5	-	Unknown *
Kaolin	1332-58-7	Present	Active
Limestone	1317-65-3	Present	Active
Titanium dioxide	13463-67-7	Present	Active
C.I. Pigment Yellow 159	68187-15-5	Present	Active
Aluminum oxide (Al ₂ O ₃)	1344-28-1	Present	Active
Bentonite	1302-78-9	Present	Active
Lithium carbonate	554-13-2	Present	Active
Amorphous Silica	112926-00-8	Present	Active
Quartz	14808-60-7	Present	Active
Epsom Salt	10034-99-8	Present	Active
Mica	12001-26-2	-	Unknown *
Silica, cristobalite	14464-46-1	Present	Active
Polyphosphoric acids, sodium salts	68915-31-1	Present	Active

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

FG00859 - DL-60 Honeycomb**Revision date** 16-Oct-2023

DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1 1.0
Aluminum oxide (Al ₂ O ₃) - 1344-28-1	1.0
Lithium carbonate - 554-13-2	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Frits, chemicals 65997-18-4	-	X	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

Limestone 1317-65-3	X	X	X
Titanium dioxide 13463-67-7	X	X	X
Aluminum oxide (Al ₂ O ₃) 1344-28-1	X	X	X
Lithium carbonate 554-13-2	X	X	-
Amorphous Silica 112926-00-8	X	-	X
Quartz 14808-60-7	X	X	X
Mica 12001-26-2	X	-	X
Silica, cristobalite 14464-46-1	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA Health hazards 3 Flammability 0 Instability 0 Special hazards -
HMIS Health hazards 2 * Flammability 0 Physical hazards 0 Personal protection X
Chronic Hazard Star Legend * = Chronic Health Hazard

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Revision date 16-Oct-2023

Revision Note**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

FG00859 - DL-60 Honeycomb

Revision date 16-Oct-2023

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet