SAFETY DATA SHEET



Revision date 09-Aug-2022

Revision Number 1

1. Identification

Product identifier

Product Name C-60 Marigold

Other means of identification

Product Code(s) FG00120

Synonyms 39418V

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 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

Warning

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Contaminated work clothing must not be allowed out of the workplace Wear protective gloves/clothing and eye/face protection Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label)
Get medical advice/attention if you feel unwell
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

25.20885 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 36.89885 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity 50.32885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 50.32885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 40.05885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Quartz	14808-60-7	10 - 20
Wollastonite (Ca(SiO3))	13983-17-0	10 - 20
Frits, chemicals	65997-18-4	10 - 20
Kaolin	1332-58-7	3 - <5
C.I. Pigment Yellow 159	68187-15-5	1 - <3
Aluminum oxide (Al2O3)	1344-28-1	1 - <3
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contactWash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

person. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

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

Product is or contains a sensitizer. May cause sensitization by skin contact.

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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off

contaminated clothing and wash before reuse.

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
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 μg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m ³ TWA	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Wollastonite (Ca(SiO3)) 13983-17-0	TWA: 1 mg/m ³ inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica	respirable fraction TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust (vacated) TWA: 5 mg/m³	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m³ Zr TWA: 0.01 mg/m³ As TWA: 0.05 mg/m³ Pb TWA: 0.01 mg/m³ Cd TWA: 0.002 mg/m³ Cd respirable particulate matter TWA: 0.5 mg/m³ Sb TWA: 1 mg/m³ Cu dust and mist TWA: 3 mg/m³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m³ Zr TWA: 0.02 mg/m³ Mn respirable particulate matter TWA: 0.1 mg/m³ Mn inhalable particulate matter	Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m³ As IDLH: 9 mg/m³ Cd dust and fume IDLH: 50 mg/m³ Sb IDLH: 100 mg/m³ Cu dust and mist IDLH: 500 mg/m³ Mn IDLH: 550 mg/m³ Zr IDLH: 100 mg/m³ Ni Ceiling: 0.002 mg/m³ As 15 min Ceiling: 0.05 mg/m³ V dust and fume 15 min TWA: 0.5 mg/m³ Sb TWA: 1 mg/m³ Cu dust and mis TWA: 1 mg/m³ Mn TWA: 5 mg/m³ except Zirconium tetrachloride Zr TWA: 0.050 mg/m³ Pb TWA: 0.015 mg/m³ except Nickel carbonyl Ni STEL: 3 mg/m³ Mn STEL: 10 mg/m³ Zr
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
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 (Al2O3) 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	

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals	200 μg/L - blood (Lead) - not critical
65997-18-4	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 Wear safety glasses with side shields (or goggles).

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

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance

Color Odor

Odor threshold

Evaporation rate

Flammability

<u>Property</u>	<u>Values</u>	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known

Initial boiling point and boiling

No data available

None known

range Flash point

No data available No data available No data available

None known None known None known None known

Flammability Limit in Air

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits No data available Vapor pressure

Relative vapor density No data available Relative density No data available Water solubility No data available Solubility(ies) No data available **Partition coefficient** No data available **Autoignition temperature** 410

Decomposition temperature Kinematic viscosity

No data available No data available None known None known

Dynamic viscosity

None known 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 avoidNone known based on information supplied.

Incompatible materialsNone known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact May cause sensitization by skin contact. Specific test data for the substance or mixture is

not available. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Harmful if swallowed. (based

on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives.

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)
 707.80 mg/kg

 ATEmix (dermal)
 10,941.80 mg/kg

 ATEmix (inhalation-dust/mist)
 8.75 mg/l

Unknown acute toxicity

25.20885 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

36.89885 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

50.32885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

50.32885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

40.05885 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

- 1			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Wollastonite (Ca(SiO3)) 13983-17-0	> 5000 mg/kg (Rat)	-	-
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)	-
C.I. Pigment Yellow 159 68187-15-5	-	-	> 5.5 mg/L (Rat) 4 h
Aluminum oxide (Al2O3) 1344-28-1	> 5000 mg/kg (Rat)	-	-
1,3,5-Triazine-1,3,5(2H,4H,6H)- triethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat) 4 h = 0.338 mg/L (Rat) 4 h

Skin corrosion/irritationNo information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	Х
Wollastonite (Ca(SiO3)) 13983-17-0	-	Group 3	-	-
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	Х

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

Group 3 - Not Classifiable as to Carcinogenicity in 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 Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
1,3,5-Triazine- 1,3,5(2H,4H,6H)-	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

triethanol		
4719-04-4		

Persistence and degradability

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 Packing group

UN3082 Ш

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
Water	7732-18-5	Present	Active
Quartz	14808-60-7	Present	Active
Wollastonite (Ca(SiO3))	13983-17-0	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Nepheline syenite	37244-96-5	-	Unknown *
Kaolin	1332-58-7	Present	Active
C.I. Pigment Yellow 159	68187-15-5	Present	Active
Aluminum oxide (Al2O3)	1344-28-1	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
C.I. Pigment Red 232	68412-79-3	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-	4719-04-4	Present	Active
triethanol			
Polyphosphoric acids, sodium	68915-31-1	Present	Active
salts			
Ethanolamine	141-43-5	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

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 (Al2O3) - 1344-28-1	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	-	Х	-	-

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
Water 7732-18-5	-	-	Х
Quartz 14808-60-7	Х	Х	Х
Wollastonite (Ca(SiO3)) 13983-17-0	Х	Х	Х
Frits, chemicals 65997-18-4	Х	-	Х
Kaolin 1332-58-7	Х	Х	Х
Aluminum oxide (Al2O3) 1344-28-1	Х	Х	Х
Ethanolamine	Х	X	Х

141-43-5

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA Health hazards 2 Flammability 0 Instability 0 Special hazards - HMIS Health hazards 2 * Flammability 0 Physical hazards 0 Personal protection X

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) (AEGL(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 09-Aug-2022

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 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