MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus™ Ceiling Panels

Page 1 of 7

USG Interiors, Inc. 125 South Franklin Street Chicago, Illinois 60680-4470 A Subsidiary of USG Corporation (312) 606-4000 Product Safety: 1 (800) 507-8899 www.usg.com Version Date: October 9, 2003 Version 2

SECTION 1 CHEMICAL PRODUCT AND IDENTIFICATION

PRODUCT: HALCYON ClimaPlus™ Ceiling Panels
CHEMICAL FAMILY: Mixture of fiber glass wool and continuous glass filaments
Manufactured by
USG Interiors, Inc.
850 North Broadway, Greenville, MS 38701-2305

and USG Interiors, Inc. 35 Arch St. Cloquet, MN 55720-1599

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL	WT%	TLV (mg/m ³)	PEL (mg/m ³)	CAS NUMBER
Fiber glass wool ¹	45 - 90	1 f/cc*	15(T)/5(R)	65997-17-3
Non-respirable continuous glass filaments ²	5 - 10	5 (R)	15(T)/5(R)	65997-17-3
Urea phenol-formaldehyde resin (cured)	1 - 20	(NE)	(NE)	25104-55-6
Urea formaldehyde binder (cured)	1 -10	(NE)	(NE)	9011-05-6
Polyvinyl alcohol polymer	1 - 2	(NE)	(NE)	9002-89-5
Ethylene-vinyl acetate polymer	1 - 4	(NE)	(NE)	24937-78-8
Formaldehyde	< 0.1 (trace)	0.3 ppm	0.75 ppm	50-00-0

(T) – Total (R) – Respirable (NE) – Not Established

¹Carcinogenicity Classification: IARC: 3 (Not Classifiable); NTP: Suspect Human Carcinogen (See Section 15). ^{*}ACGIH: 1 fiber/cubic centimeter air for fibers longer than 5 micrometers and thinner than 3 micrometers;

²As manufactured, continuous filament glass fibers are not respirable. Continuous filaments that are chopped, crushed, or severely mechanically processed during manufacture or use may contain very small amounts of respirable particulates [PEL = $5 \text{ mg/m}^3(R)$].

SECTION 3 HAZARD IDENTIFICATION

INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings:		
Health:	0	$\langle 0 \rangle$
Fire:	0	
Reactivity:	0	

HIMS Ratings:	
Health:	*0
Fire:	0
Reactivity:	0

HEALTH	*	0
FLAMMABILIT	Y	0
PHYSICAL HAZ	ZARD	0
PERSONAL PROTE	ECTIO	NE

- 0 = Minimal Hazard
- 1 = Slight Hazard
- 2 = Moderate Hazard
- 3 = Serious Hazard
- 4 = Severe Hazard

Personal Protection: Use eye protection. Use gloves and NIOSH/MSHA-approved respiratory protection when required. *Respirable crystalline silica can cause lung disease and/or cancer.

MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus™ Ceiling Panels

Page 2 of 7

SECTION 3 HAZARD IDENTIFICATION (continued)

EMERGENCY OVERVIEW

This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract.

POTENTIAL HEALTH EFFECTS: The components of ceiling panels and tiles are bound in a cementitious matrix. When panels are cut or trimmed, especially with power tools, the resulting dust may cause transitory mechanical irritation to skin, eyes or respiratory tract. Breathing large amounts of dust or fibers from this product may lead to chronic health effects (see Section 11). Formaldehyde gas, which can cause severe eye and respiratory irritation, may be released under conditions of high heat and humidity. Inhalation of formaldehyde may result in discomfort such as nausea, headache, or weakness; upper respiratory tract (nose and throat) irritation marked by mild burning sensation, sore and dry throats, and thirst; and temporary lung irritation effects with cough, discomfort, difficulty in breathing, and shortness of breath. In a few rare instances, respiratory tract sensitization (asthma) has been reported in individuals exposed to formaldehyde. Skin or respiratory exposure to formaldehyde may cause skin or respiratory sensitization (allergy).

ACUTE:

Eyes: Direct contact of dust with eyes can cause mechanical irritation.

Skin: Mechanical action of fiber glass wool and/or continuous glass filaments can cause itchiness. Skin irritation may occur with prolonged and repeated contact.

Inhalation: Dust inhalation can cause nose, throat and respiratory tract irritation.

Ingestion: If ingested, it may cause temporary irritation to the gastrointestinal tract, especially the stomach.

CHRONIC:

Eyes: No known effects Skin: No known effects Inhalation: Prolonged and repeated exposure to respirable fiber glass wool may result in lung disease and/or lung cancer (See Section 11). Ingestion: No known effects

SECTION 4 FIRST AID MEASURES

TARGET ORGANS: Skin, eyes, respiratory system,

Primary Routes of Entry: Physical contact (skin, eyes). Inhalation (upper respiratory tract)

FIRST AID PROCEDURES

Eyes: Do not rub or scratch your eyes. Dust particles may scratch the eye. Flush eyes with large amounts of water for 15 minutes. If irritation persists, contact a medical professional.

Skin: Wash gently with soap and warm water to remove dust. Wash hands before eating or using the restroom.

Inhalation: Remove to fresh air. Drink water to clear throat, and blow nose to remove dust.

Ingestion: This product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing chronic skin, eye, respiratory (e.g., bronchitis, emphysema, and asthma), disease or conditions.

Notes to Physician: This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

MSDS # 41-400-001

USG

Page 3 of 7

SECTION 5 FIRE FIGHTING MEASURES

Flash Point (Method Used):	Not applicable
Upper and lower flammable limits in air:	Not applicable
Autoignition temperature:	Not determined
Flammability classification:	Not determined
Burning rate:	Not determined
Hazardous combustion products:	Formaldehyde, nitrogen oxides, amines, oxides of carbon, low molecular weight hydrocarbons, hydrogen chloride, phosgene and acetic acid.
Properties that initiate/contribute to fire:	Not applicable
EXTINGUISHING MEDIA:	Carbon dioxide (CO ₂), water, water fog, foam, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES:	No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIRE FIGHTING PROTECTIVE EQUIPMENT:	Use self-contained breathing apparatus in a sustained fire and full protective fire fighting gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

CONTAINMENT: Not necessary. Treat as inert material.

CLEAN UP: Pick up large pieces. Use gloves to avoid skin irritation. Vacuum dust, preferable with an industrial vacuum cleaner with high efficiency air filter. If sweeping is necessary, use dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean up. These procedures will help minimize potential exposures.

DISPOSAL: Dispose in sanitary landfill in accordance with local, state and federal requirements.

SECTION 7 HANDLING AND STORAGE

HANDLING: Use protective equipment to avoid irritation as described in Section 8.

STORAGE: Warehouse storage should be in accordance with package directions. Material should be kept dry and protected from the elements. If stored under elevated temperature and high humidity conditions, low levels of formaldehyde may be released and accumulate in poorly ventilated areas.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation and local exhaust ventilation to meet TLV requirements of individual ingredients (see Section 2) and to control dusting conditions. If cutting or trimming with power equipment, dust collectors and local ventilation should be used.

Avoid unnecessary exposure to dust and handle with care. Keep work area clean of dust and fibers by using an industrial vacuum cleaner with high efficiency filter or wetting down area with water. Never use compressed air and avoid dry sweeping.

MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus[™] Ceiling Panels

Page 4 of 7

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

EYE PROTECTION: Wear safety glasses with sideshields or goggles to avoid eye irritation.

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA-approved dust respirator in poorly ventilated areas where local exhaust is not feasible, if TLV is exceed, and/or when dusty conditions exist. Avoid prolonged and repeated breathing of dust.

OTHER CLOTHING: Wear tight fitting goggles and gloves when dusty conditions exist. Wear long-sleeved, loose fitting clothing at the neck and wrists and minimize skin contact. Wash work clothing separately from other clothing. Rinse washer thoroughly after use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White or color coated woven mat on face with water-based paint with amber core.	Odor	Low to no odor
Physical State	Solid	рН @ 25 º С	Not applicable
Vapor Pressure	Not applicable	Vapor Density (Air = 1)	Not applicable
Boiling Point	Not applicable	Vapor Pressure (mm Hg)	Not applicable
Freezing Point	Not applicable	Evaporation Rate (BuAc = 1)	Not applicable
Melting Point	> 800 °C/1470 °F	Percent Volatile	0
Softening Point	Not determined	Particle Size	Not applicable
Solubility (H2O)	Insoluble	Molecular Weight	Not applicable
Viscosity	Not applicable	Bulk Density	Not determined
Specific Gravity (H	$H_20 = 1$): Variable (approximately 2.6 – 3.0)		

SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY:	This is a stable material. This product is not reactive.
INCOMPATIBILITY:	Not applicable
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION:	The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis (burning) of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and traces of hydrogen cyanide, hydrogen chloride, and phosgene.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE DATA:

Fiber Glass (65997-17-3) Oral LD₅₀ rat: Not determined. Dermal LD₅₀ rat: Not Determined Skin Irritation: Mechanical irritant. Eye Irritation: Mechanical irritant.

MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus™ Ceiling Panels

Page 5 of 7

SECTION 11 TOXICOLOGICAL INFORMATION (continued)

Urea phenol-formaldehyde resin (cured; 25104-55-6)

Oral LD₅₀ rat: 7 g/kg Oral LD₅₀ mouse: 7 g/kg

Urea formaldehyde binder (cured; 9011-05-6)

Inhalation LC_{50} rat: >167 mg/m³ / 4 hours Oral LD_{50} rat: 8394 mg/kg Oral LD_{50} mouse: 6361 mg/kg

Formaldehyde (50-00-0)

Inhalation LC_{50} rat: 203 mg/m³ Inhalation LC_{50} mouse: 454 mg/ m³/ 4 hrs Oral LD_{50} rat: 100 mg/kg Oral LD_{50} mouse: 42 mg/kg Dermal LD_{50} rabbit: 270 µL/kg

Inhalation:

IARC classified glass fiber, respirable and nonrespirable, as a Group 3 substance (not classifiable as a carcinogen).

Formaldehyde gas has been related to the development of nasal tumors in some experimental animals. Evidence for this development in humans has never been found. Formaldehyde is classified as a probable human carcinogen (Group 2A) by the International Agency for Research on Cancer (IARC). Long time exposure to formaldehyde can cause skin or respiratory sensitization. Formaldehyde did not cause birth defects in offspring of female mice exposed to concentrations up to 10 ppm.

SECTION 12 ECOLOGICAL INFORMATION

This product is not expected to have an adverse effect on the ecology. **Formaldehyde (50-00-0)** Flathead minnow LC₅₀: 24.1 mg/L, 96 hr; Cond: flow-through, 21.7 °C, pH 6.8, 50.8 mg/L CaCO₃ Bluegill LC₅₀: 0.1 mg/L, 96 hr; Cond: flow-through Water flea EC₅₀: 20 mg/L, 96 hr Photobacterium phosphoreum EC₅₀: 3.00 – 10.2 mg/L, 30 min; Microtox test

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of material in accordance with federal, state, and local regulations. Wastes are not hazardous as defined by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261).

Waste Numbers: Formaldehyde (50-00-0) RCRA: waste number U122

SECTION 14 TRANSPORT INFORMATION

U.S. DOT INFORMATION: Not a hazardous material per DOT shipping requirements. Not classified or regulated.

USC ⊩

SECTION 15 REGULATORY INFORMATION

UNITED STATES REGULATIONS

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

WT%	302	304	313	CERCLA	CAA Sec. 112	RCRA Code
45 - 90	NL	NL	NL	NL	NL	NL
5 - 10	NL	NL	NL	NL	NL	NL
1 - 20	NL	NL	NL	NL	NL	NL
1 -10	NL	NL	NL	NL	NL	NL
1 - 2	NL	NL	NL	NL	NL	NL
1 - 4	NL	NL	NL	NL	NL	NL
< 0.1 (trace)	500	100	Х	100	15,000	U122
	45 - 90 5 - 10 1 - 20 1 -10 1 - 2 1 - 4	45 - 90 NL 5 - 10 NL 1 - 20 NL 1 -10 NL 1 - 2 NL 1 - 4 NL	45 - 90 NL NL 5 - 10 NL NL 1 - 20 NL NL 1 -10 NL NL 1 - 2 NL NL 1 - 4 NL NL	45 - 90 NL NL NL 5 - 10 NL NL NL 1 - 20 NL NL NL 1 -10 NL NL NL 1 - 2 NL NL NL 1 - 4 NL NL NL	How How <td>WT% 302 304 313 Junctify End of the system 45 - 90 NL NL NL NL NL NL 5 - 10 NL NL NL NL NL NL 1 - 20 NL NL NL NL NL NL 1 - 10 NL NL NL NL NL 1 - 2 NL NL NL NL NL 1 - 4 NL NL NL NL NL</td>	WT% 302 304 313 Junctify End of the system 45 - 90 NL NL NL NL NL NL 5 - 10 NL NL NL NL NL NL 1 - 20 NL NL NL NL NL NL 1 - 10 NL NL NL NL NL 1 - 2 NL NL NL NL NL 1 - 4 NL NL NL NL NL

Key: NL = Not Listed

SARA Title III Section 302 (EPCRA) Extremely Hazardous Substances: Threshold Planning Quantity (TPQ) SARA Title III Section 304 (EPCRA) Extremely Hazardous Substances: Reportable Quantity (RQ) SARA Title III Section 313 (EPCRA) Toxic Chemicals: X= Subject to reporting under section 313 CERCLA Hazardous Substances: Reportable Quantity (RQ)

CAA Section 112 (r) Regulated Chemicals for Accidental Release Prevention: Threshold Quantities(TQ) RCRA Hazardous Waste: RCRA hazardous waste code

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. All components of this product are included in the Canadian Domestic Substances List (DSL).

MATERIAL	WT%	IDL Item #	WHMIS Classification:
Fiber glass wool ¹	45 - 90	Not Listed	Not Listed
Non-respirable continuous glass filaments ²	5 - 10	Not Listed	Not Listed
Urea phenol-formaldehyde resin (cured)	1 - 20	Not Listed	Not Listed
Urea formaldehyde binder (cured)	1 -10	Not Listed	Not Listed
Polyvinyl alcohol polymer	1 - 2	Not Listed	Not Listed
Ethylene-vinyl acetate polymer	1 - 4	Not Listed	Not Listed
Formaldehyde	< 0.1 (trace)	781	A, B1, D1A
IDI Itana II. Canadian Harandawa Duadwata Aat	la ana al'a a t Dia ala	and the set of the set	

IDL Item # : Canadian Hazardous Products Act – Ingredient Disclosure List Item # WHMIS Classification: Workplace Hazardous Material Information System

CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S)

See Section 11 : Toxicology Information for detailed information

MATERIAL	IARC	NTP	ACGIH	CAL- 65
Fiber glass wool	3	2	A3	Not Listed
Formaldehyde	2A	2	A2	Listed

In October 2001, IARC classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The decision was based on current human and animal research that shows no association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This was a **reversal** of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiber glass. The NTP has not yet reviewed the IARC reclassification or the most current fiber glass health research. At this time the NTP continues to classify glass wool fiber based on the earlier animal injection studies.

MSDS # 41-400-001

MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus[™] Ceiling Panels

Page 7 of 7

SECTION 15 REGULATORY INFORMATION (continued)

- IARC International Agency for Research on Cancer (World Health Organization)
- 1- Carcinogenic to humans
- 2A Probably carcinogenic to humans
- 2B Possibly carcinogenic to humans
- 3 Not classifiable as a carcinogen
- 4 Probably not a carcinogen

NTP - National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS)

- 1- Known to be carcinogen
- 2- Anticipated to be carcinogens

ACGIH – American Conference of Governmental Industrial Hygienists

- A1 Confirmed human carcinogen
- A2 Suspected human carcinogen
- A3 Animal carcinogen
- A4 Not classifiable as a carcinogen
- A5 Not suspected as a human carcinogen

CAL-65 - California Proposition 65 "Chemicals known to the State of California to Cause Cancer"

SECTION 16 OTHER INFORMATION

∆WARNING!

Sustained high level exposure to fiber glass may increase the risk of lung cancer. Dust exposure can cause temporary eye, skin, and respiratory tract irritation. Avoid dust contact with eyes and skin. Avoid breathing dust and install in well-ventilated area. If dusty, use NIOSH/MSHA-approved dust respirator. Cut and trim with razor knife or hand saw to minimize dust levels. Using power tools for cutting will generate high dust levels. Power tools must be equipped with dust collection system. Wear appropriate eye protection and long-sleeve, loose fitting clothing closed at the neck and wrists. Wash work clothing separately from other clothing. Rinse washer after use. Product safety information: (800) 507-8899 or www.usg.com

KEEP OUT OF REACH OF CHILDREN.

The International Agency for Research on Cancer (IARC) has concluded that fiber glass wool like that used in this product is not classifiable as to carcinogenicity to humans (Group 3).

FIRST AID:

EYES and SKIN: If contact occurs, flush eyes thoroughly with water for 15 minutes. Do not rub eyes. Rinse skin with cool water, followed by washing with soap and warm water. If irritation persists, consult physician. Product safety information: (800) 507-8899 or www.usg.com.

Key/Legend

TLV	Threshold Limit Value
PEL	Permissible Exposure Limit
CAS	Chemical Abstracts Service (Registry Number)
NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration
OSHA	Occupational Health and Safety Administration
ACGIH	American Conference of Governmental Industrial Hygienists
IARC	International Agency for Research on Cancer
DOT	United States Department of Transportation

MATERIAL SAFETY DATA SHEET HALCYON ClimaPlus[™] Ceiling Panels

Page 8 of 7

SECTION 16 OTHER INFORMATION (continued)

Key/Legend (continued)

EPA	United States Environmental Protection Agency
NFPA	National Fire Protection Association
HMIS	Hazardous Materials Identification System
PPE	Personal Protection Equipment
TSCA	Toxic Substances Control Act
DSL	Canadian Domestic Substances List
NDSL	Canadian Non-Domestic Substances List
SARA	Superfund Amendments and Reauthorization Act of 1986
RCRA	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
UN/NA#	United Nations/North America number
CFR	Code of Federal Regulations
WHMIS	Workplace Hazardous Material Information System
Prepared by:	
Product Safety	
USG Corporation	
125 South Franklin St.	
Chicago, Illinois 60606	

END