SAFETY DATA SHEET

ZYTEL HTN®HTN 54G35EF BK 420 APE5

Version	Revision Date:	SDS Number:	Date of last issue: -
2.0	07-09-2024	300010000049	Date of first issue: 07-09-2024

SECTION 1. IDENTIFICATION

Product name : ZYTEL HTN®HTN 54G35EF BK 420 APE5

Product code : 000000000021054647

Manufacturer or supplier's details

Company name of supplier : Celanese Sales U.S. Ltd.
Address : 222 West Las Colinas Boulevard Suite 900N
Irving TX 75039
Telephone : '+1 972-443-4000
E-mail address of person responsible for the SDS : HazCom@celanese.com
Emergency telephone number : DOMESTIC NORTH AMERICA: 800-424-9300
INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted)

Recommended use of the chemical and restrictions on use

Recommended use : Polymer
Restrictions on use : For manufacturing and research use only

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

GHS label elements

Signal word : Warning

Hazard statements : SDS Label If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

This product does not contain any reportable carcinogens according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.

		Call a physician.
In case of skin contact	:	The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
If swallowed	:	No specific intervention is indicated. Consult a physician if necessary.
Most important symptoms and effects, both acute and delayed	:	May cause cancer.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water Foam Dry chemical Carbon dioxide (CO2)
Specific hazards during fire-fighting	:	Combustible Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Material in pellet form may accumulate static charge when poured from one container to another. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards.
Hazardous combustion products	:	Hazardous combustion products may include: Carbon monoxide carbon dioxide (see also section 10)
Further information	:	Evacuate personnel and keep upwind of fire.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Spilled material is a slipping hazard.
Environmental precautions	:	Do not discharge to streams, ponds, lakes or sewers.
Methods and materials for containment and cleaning up	:	Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Use only non-sparking tools.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Open container only in well-ventilated area.
Wash hands thoroughly after handling.
Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated.
Do not breathe dust.
Minimize the generation and accumulation of dust.
Pneumatic conveying and other mechanical handling operations can generate combustible dust.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for safe storage : Store in a cool, dry place.
Keep container closed to prevent contamination.
Keep in an area equipped with sprinklers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Dust (inhalable and respirable fraction)	Not Assigned	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH
		TWA (Inhalable particulate matter)	10 mg/m3	ACGIH

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

Engineering measures : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits.
Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.

Personal protective equipment

Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled.
A respiratory protection program that meets country require-

ments must be followed whenever workplace conditions warrant respirator use.
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.
Consult the OSHA respiratory protection information located at 29CFR 1910.134.

Hand protection

Remarks	:	Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding. When handling hot material, use heat resistant gloves.
Eye protection	:	Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.
Skin and body protection	:	If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	pellets
Colour	:	black
Odour	:	none
Odour Threshold	:	Not applicable
pH	:	Not applicable
Melting point/range	:	> 392 °F / > 200 °C
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	May form combustible dust concentrations in air during processing, handling or other means.
Self-ignition	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable

Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	> 1
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Not applicable
Decomposition temperature	:	> 680 °F / 360 °C Thermal decomposition of the resin accelerates above temperature listed. Decomposition can occur below the recommended processing temperature limit. Decomposition is a function of both processing temperature and time at that temperature.
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable at normal ambient temperature and pressure.
Chemical stability	:	Stable at normal ambient temperature and pressure.
Possibility of hazardous reactions	:	Polymerization will not occur.
Conditions to avoid	:	Temperature > 360 °C Avoid prolonged exposure at or above the recommended processing temperatures. Decomposes on heating. At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates. Decomposition can occur below the recommended processing temperature limit. Decomposition is a function of both processing temperature and time at that temperature.
Incompatible materials	:	Strong acids Strong bases Strong oxidizing agents
Hazardous decomposition products	:	Hazardous thermal decomposition products may include: Ammonia traces of hydrogen cyanide Aldehydes Nitrogen oxides (NOx) Respirable particles. hexanediol carbon dioxide Carbon monoxide Benzene

Cyclopentanone
3-Methylpiperidine
Methyl acrylate

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified due to lack of data.

Skin corrosion/irritation
Not classified due to lack of data.

Serious eye damage/eye irritation
Not classified due to lack of data.

Respiratory or skin sensitisation

Skin sensitisation
Not classified due to lack of data.

Respiratory sensitisation
Not classified due to lack of data.

Germ cell mutagenicity
Not classified due to lack of data.

Carcinogenicity
May cause cancer.

IARC	Group 1: Carcinogenic to humans	
	Talc (Mg3H2(SiO3)4)	14807-96-6
	Group 2B: Possibly carcinogenic to humans	
	Carbon black	1333-86-4
OSHA	OSHA specifically regulated carcinogen	
	Talc (Mg3H2(SiO3)4) (crystalline silica)	14807-96-6
NTP	Known to be human carcinogen	
	Talc (Mg3H2(SiO3)4) (Silica, Crystalline (Respirable Size))	14807-96-6

Reproductive toxicity
Not classified due to lack of data.

STOT - single exposure
Not classified due to lack of data.

STOT - repeated exposure
Not classified due to lack of data.

Aspiration toxicity
Not classified due to lack of data.

Further information

Product:
Remarks : No data is available on the product itself.

For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information	:	No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.
Contaminated packaging	:	Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust
Combustible dust
Carcinogenicity

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

None known.

New Jersey Right To Know

None known.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

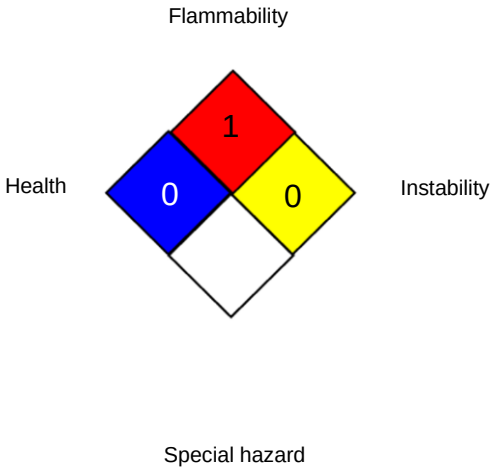
California Regulated Carcinogens

Talc (Mg3H2(SiO3)4)	14807-96-6

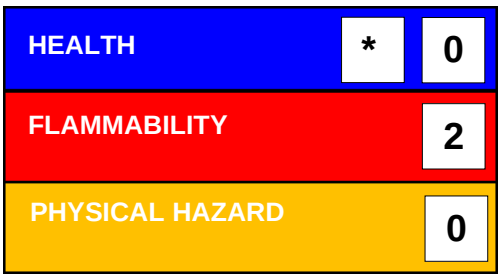
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund

Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 07-09-2024

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.

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