SAFETY DATA SHEET

ELOTEX FL3210

Version	Revision Date:	SDS Number:	Date of last issue: 05/05/2023
1.2	07-18-2023	000000048958	Date of first issue: 06/25/2021

SECTION 1. IDENTIFICATION

Product name : ELOTEX FL3210

Product code : 000000000027021039

Manufacturer or supplier's details

Company name of supplier : Celanese Sales U.S. Ltd.
Address : 222 West Las Colinas Boulevard Suite 900N
IrvingTX 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 : Industrial use

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 : May form combustible dust concentrations in air.

Other hazards

Risk of dust explosion.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : Dispersion powder

Components

Chemical name	CAS-No.	Concentration (% w/w)
dolomite	16389-88-1	>= 10 - < 20
formic acid	64-18-6	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

If inhaled : Remove to fresh air.
Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Remove contaminated clothing and shoes.
Wash off immediately with plenty of water.

In case of eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : None known.

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water mist
Foam
Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire-fighting : Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

Hazardous combustion products : No hazardous combustion products are known

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid dust formation.

Environmental precautions : Try to prevent the material from entering drains or water courses.

Try to prevent the material from entering drains or water

courses.

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Shovel or sweep up.
Keep in suitable, closed containers for disposal.

Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : No sparking tools should be used.
Take measures to prevent the build up of electrostatic charge.

Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Avoid creating dust.
Keep away from fire, sparks and heated surfaces.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Keep in a dry place.
Store at room temperature in the original container.
Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

Keep in a dry place.
No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dolomite	16389-88-1	TWA (Respirable)	5 mg/m3 (Calcium carbonate)	NIOSH REL
		TWA (total)	10 mg/m3 (Calcium carbonate)	NIOSH REL
formic acid	64-18-6	TWA	5 ppm	ACGIH
		STEL	10 ppm	ACGIH
		TWA	5 ppm	NIOSH REL

			9 mg/m3	
		TWA	5 ppm 9 mg/m3	OSHA Z-1
		TWA	5 ppm 9 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Directive : Protective gloves complying with EN 374.

Eye protection : Safety glasses
Skin and body protection : Protective suit
Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Colour : white

Odour : slight

pH : 5.5 - 7.5
Concentration: 10 %
(as a dispersion)

Boiling point/boiling range : Not applicable

Flash point : Not applicable

Flammability (solid, gas) : The product is not flammable.

Upper explosion limit / Upper flammability limit : Not applicable

Lower explosion limit / Lower flammability limit : 15.000 mg/m3

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : Not applicable

Density	:	not determined
Bulk density	:	400 - 600 kg/m3
Solubility(ies)		
Water solubility	:	dispersible
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	> 572 °F / 300 °C Method: DIN EN 50281-2-1
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Dust explosion class	:	St1
Particle size	:	ca. 60 - 120 µm Method: ISO 13320 Physical state, agglomerates < 1 µm Method: OECD Test Guideline 110 nano particles, Physical state, aggregates

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned. Dust may form explosive mixture in air.
Conditions to avoid	:	No data available
Incompatible materials	:	None known.

Hazardous decomposition products

Thermal decomposition	:	No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity	:	Acute toxicity estimate: > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method

Components:

dolomite:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

formic acid:

Acute oral toxicity : LD50 (Rat): 730 - 1,830 mg/kg

Acute inhalation toxicity : LC50: 7.4 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Skin corrosion/irritation

Not classified based on available information.

Components:

formic acid:

Species : Rabbit
Result : Corrosive

Serious eye damage/eye irritation

Not classified based on available information.

Components:

formic acid:

Species : Rabbit
Result : Corrosive

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

formic acid:

Result : positive

Germ cell mutagenicity

Not classified based on available information.

Components:

formic acid:

Genotoxicity in vivo : Result: negative

Carcinogenicity

Not classified based on available information.

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

formic acid:

Effects on fertility : Species: Rat
Application Route: Inhalation
Dose: at a dose level of 128 ppm
Duration of Single Treatment: 90 d
Result: No effect on testis or epididymal weights or sperm motility or density.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

dolomite:

Toxicity to fish : LC50 (Fish): > 1,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : (Daphnia (water flea)): > 5,000 mg/l
Exposure time: 48 h

formic acid:

Toxicity to fish : LC0 (Carassius auratus (goldfish)): 46 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 151 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): 25 mg/l Exposure time: 96 h
Toxicity to fish (Chronic toxicity)	:	LC50 (Leuciscus idus (Golden orfe)): 122 mg/l Exposure time: 48 h Test Type: static conditions
Toxicity to microorganisms	:	EC50 (Pseudomonas putida): 46.7 mg/l Exposure time: 17 h

Persistence and degradability

Product:

Biodegradability	:	Result: Not readily biodegradable.
BOD/COD	:	Remarks: No data available

Components:

formic acid:

Biodegradability	:	Inoculum: activated sludge Biodegradation: 40 - 70 % Exposure time: 1 d

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Bioaccumulation is unlikely.

Components:

formic acid:

Bioaccumulation	:	Bioconcentration factor (BCF): 3.2

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological infor-	:	No data available

mation

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Empty containers should be taken to local recyclers for disposal.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methanol	67-56-1	100	100 (F003)

SARA 304 Extremely Hazardous Substances Reportable Quantity
Listed substances in the product are at low enough levels to not be expected to exceed the RQ

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

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.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

formic acid	64-18-6	>= 0.1 - < 1 %
phosphoric acid	7664-38-2	>= 0 - < 0.1 %
Acetaldehyde	75-07-0	>= 0 - < 0.1 %
vinyl acetate	108-05-4	>= 0 - < 0.1 %
sulphuric acid	7664-93-9	>= 0 - < 0.1 %
diiron tris(sulphate)	10028-22-5	>= 0 - < 0.1 %
Sulfuric acid, ammonium iron(2+) salt (2:2:1), hexahydrate	7783-85-9	>= 0 - < 0.1 %
iron (II) sulfate (1:1) heptahydrate	7782-63-0	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

formic acid	64-18-6	>= 0.1 - < 1 %
phosphoric acid	7664-38-2	>= 0 - < 0.1 %
Acetaldehyde	75-07-0	>= 0 - < 0.1 %
vinyl acetate	108-05-4	>= 0 - < 0.1 %
sulphuric acid	7664-93-9	>= 0 - < 0.1 %
diiron tris(sulphate)	10028-22-5	>= 0 - < 0.1 %
Sulfuric acid, ammonium iron(2+) salt (2:2:1), hexahydrate	7783-85-9	>= 0 - < 0.1 %
iron (II) sulfate (1:1) heptahydrate	7782-63-0	>= 0 - < 0.1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

California Prop. 65

WARNING: This product can expose you to chemicals including Acetaldehyde, sulphuric acid, dibromoacetonitrile, formaldehyde, which is/are known to the State of California to cause cancer, and
methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

TSCA list

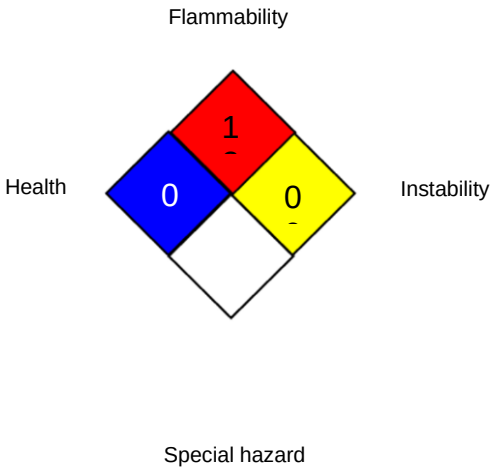
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

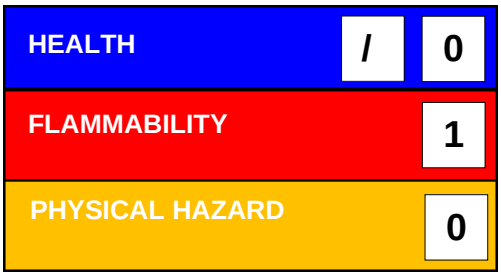
SECTION 16. OTHER INFORMATION

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)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / 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 : 07-18-2023

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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