COLORTHERM YELLOW 20



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ECTION	1. IDENTIFICATION			
Produ	uct name	:	COLORTHERM	YELLOW 20
Produ	uct code	:	0000000005693	1452
Manu	facturer or supplier's	deta	ils	
Comp	bany	:	111 RIDC Park V	Regulatory Affairs
Resp	onsible Department	:	(800) LANXESS (412) 809-1000 lanxesshes@lan	
Emer	gency telephone	:	(703) 527-3887 (0) 424-9300 or Outside U.S.A) and mention CCN12916. ency Phone (800) 410-3063.
Reco	mmended use of the	chem	nical and restriction	ons on use
_				the set (fra) to see all

Recommended use : Colorants (pigments and dyestuffs), inorganic

SECTION 2. HAZARDS IDENTIFICATION

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

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
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Chemical nature : FeO(OH)

Components



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Chemical name	CAS-No.	Concentration (% w/w)
Aluminum hydroxide	21645-51-2	>= 10 - < 20
Phosphoric acid, aluminum salt (1:1)	7784-30-7	>= 1 - < 5
Any concentration charms on a remain	in the manufacture and the	attalli

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

If inhaled	:	Move to fresh air. Get medical attention if symptoms occur.
		Remove victim to fresh air and keep at rest in a position com- fortable for breathing. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, give artificial respiration.
In case of skin contact	:	Wash off with soap and water. Get medical attention if symptoms occur.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Get medical attention if symptoms appear.
If swallowed	:	Rinse mouth with water. Do NOT induce vomiting. Call a physician immediately.
Most important symptoms	and	effects, both acute and delayed
Symptoms	:	May cause irritation with symptoms of reddening and itching. Eye: May cause irritation with symptoms of reddening, tear- ing and stinging.
Effects	:	May cause mechanical irritation (abrasion).
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2 .
Unsuitable extinguishing	:	None known.
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me	dia			
Specific hazards during fire fighting			Do not allow run- courses.	off from fire fighting to enter drains or water
fighting Further information		:	Promptly isolate t vicinity of the incid No action shall be suitable training. Use extinguishing cumstances and t Collect contamina must not be disch Fire residues and	are for chemical fires. the scene by removing all persons from the dent if there is a fire. taken involving any personal risk or without measures that are appropriate to local cir- the surrounding environment. ated fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.
	ecial protective equipment fire-fighters	:	and self-containe	ld wear appropriate protective equipment d breathing apparatus (SCBA) with a full ed in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : tive equipment and emer- gency procedures	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Avoid dust formation. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment.
Environmental precautions :	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Methods and materials for : containment and cleaning up	Move containers from spill area. Vacuum or sweep up material and place in a designated, la- beled waste container. Dispose of wastes in an approved waste disposal facility.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	For personal protection see section 8. Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.
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		equipment. Keep in the or from a compa use. Dispose of rin regulations.	ufficient ventilation, wear suitable respiratory iginal container or an approved alternative made tible material, kept tightly closed when not in se water in accordance with local and national Id wash hands and face before eating, drinking
Con	ditions for safe storage	Store in origin dry, cool and materials (see Keep containe ventilated plac Containers the and kept uprig Electrical insta	dance with local regulations. al container protected from direct sunlight in a well-ventilated area, away from incompatible e Section 10) and food and drink. ers tightly closed in a dry, cool and well- ce. at have been opened must be carefully resealed ght to prevent leakage. allations / working materials must comply with cal safety standards.
	ner information on stor-	: Keep in a dry	place.
	stability	No decompos	ition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

inert or nuisance dust	50 Million particles per cubic foot Value type (Form of exposure): TWA (total dust) Basis: OSHA Z-3
	15 mg/m3 Value type (Form of exposure): TWA (total dust) Basis: OSHA Z-3
	5 mg/m3 Value type (Form of exposure): TWA (respirable fraction) Basis: OSHA Z-3
	15 Million particles per cubic foot Value type (Form of exposure): TWA (respirable fraction) Basis: OSHA Z-3





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Dust, nuisance dust and par- ticulates			10 mg/m3 Value type (Fo Basis: CAL PE		: PEL (Total dust)		
			5 mg/m3 Value type (Fo Basis: CAL PE		: PEL (respirable dus	st fraction)	
Comp	oonents		CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis	
Alumi	inum hydroxide		21645-51-2	TWA (Res- pirable par- ticulate mat- ter)	1 mg/m3 (Aluminum)	ACGIH	
Phos salt (*	phoric acid, aluminum 1:1)		7784-30-7	TWA (Res- pirable par- ticulate mat- ter)	1 mg/m3 (Aluminum)	ACGIH	
Engiı	neering measures	:		ventilation shou airborne conta	ld be sufficient to co minants.	ntrol work-	
Perso	onal protective equipm	ent					
Resp	iratory protection	:	Dust-protectio	on mask if there	is a risk of dust forma	ation.	
	protection aterial	:	Gloves				
Re	Remarks		The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamina- tion with product change the gloves immediately and dispose of them according to relevant national and local regulations				
Eye p	protection	:	Safety glasses with side-shields				
Skin a	Skin and body protection		Wear suitable protective clothing.				
Hygiene measures :		:	When using d Wash face, ha handling. Wash contam Remove conta	inated clothing b	or smoke. posed skin thorough		

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Physical state	:	solid
Color	:	yellow
Odor	:	odorless
Odor Threshold	:	No data available
рН	:	4 - 8 Concentration: 5 %
Melting point/range	:	> 1,832 °F / > 1,000
Boiling point/boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Self-ignition	:	No data available
Burning number	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	Not applicable
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	No data available
Bulk density	:	3,800 kg/m3
Solubility(ies) Water solubility	:	insoluble
Solubility in other solvents	:	No data available

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	on coefficient: n- ol/water	:	No data available	9
Ignitic	on temperature	:	No data available	9
Deco	mposition temperature	:	No data available	9
Visco Vis	sity scosity, dynamic	:	No data available	9
Vis	scosity, kinematic	:	No data available	9
Explo	sive properties	:	No data available	9
Oxidiz	zing properties	:	No data available	9

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reac- tions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of	exposure				
Inhalation					
Eye contact Skin contact					
Acute toxicity					
Not classified due to lack of data.					
Product:					
Acute oral toxicity :	LD50 (Rat): > 5,000 mg/kg Remarks: Test results on an analogous product				

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Components:

Aluminum hydroxide:

Acute oral toxicity	: LD50 (Rat, female): > 2,000 mg/kg
-	Method: OECD Test Guideline 423
	GLP: Yes
	Assessment: The substance or mixture has no acute oral tox- icity
	Remarks: Dosage caused no mortality

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Result	:	No skin irritation
Remarks	:	Test results on an analogous product

Components:

Aluminum hydroxide:

Species Method	RabbitOECD Test Guideline 404
Result GLP	No skin irritationYes

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Result	:	No eye irritation
Remarks	:	Test results on an analogous product

Components:

Aluminum hydroxide:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
GLP	:	Yes

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

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Components:

Aluminum hydroxide:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	Yes

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Aluminum hydroxide:		
Genotoxicity in vitro	 Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: Yes 	n
Genotoxicity in vivo	: Test Type: Micronucleus test Species: Rat (male) Cell type: Bone marrow Application Route: Oral Method: OECD Test Guideline 474 Result: negative	

GLP: Yes

Carcinogenicity

Not classified due to lack of data.

IARC	No ingredient 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 ingredient 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 due to lack of data.

Components:

Aluminum hydroxide:

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Effe	ects on fertility	:	Species: Rat, mal Application Route Dose: 0 - 40 - 200 General Toxicity F Fertility: NOAEL: : Early Embryonic I weight Method: OECD To Result: No effects ment were detecto GLP: Yes	: Oral) milligram per kilogram Parent: NOAEL: 200 mg/kg body weight >= 1,000 mg/kg body weight Development: NOAEL: >= 1,000 mg/kg body est Guideline 422 o n fertility and early embryonic develop-
Effe	ects on fetal development	:	General Toxicity N	ale : Oral 4 milligram per kilogram /Jaternal: NOAEL: >= 768 mg/kg body weight oxicity: NOAEL: >= 768 mg/kg body weight est Guideline 414
	DT-single exposure classified due to lack of da	ata.		
<u>Cor</u>	<u>nponents:</u>			
	minum hydroxide: essment	:	May cause respira	atory irritation.
Pho	osphoric acid, aluminum	sal	t (1:1):	
Ass	essment	:	May cause respire	atory irritation.
Not	DT-repeated exposure classified due to lack of da	ata.		
-	beated dose toxicity			
	nponents:			
Spe NO App Exp	minum hydroxide: ecies AEL olication Route osure time nber of exposures	:	Rat, male >= 302 mg/kg Oral 28 d daily	

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	Dose Methoo GLP Remar		: :	302 mg Al/kg bw/ OECD Test Guide No information av Subacute toxicity	eline 407
	Aspira	tion toxicity			
	Not cla	ssified due to lack of da	ata.		
SEC	TION 1	2. ECOLOGICAL INFO	DRI	MATION	
	Ecotox	licity			
	Compo	onents:			
	Alumir	num hydroxide:			
	Toxicity	<i>ı</i> to fish	:	LC50 (Oncorhynd Exposure time: 96 Analytical monitor Method: OECD T GLP: Yes Remarks: nomina	ing: Yes est Guideline 203
		<i>r</i> to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48 Analytical monitor Method: OECD T GLP: Yes Remarks: nomina	ing: Yes est Guideline 202
	Toxicity plants	∕ to algae/aquatic	:	ErC50 (Pseudokin mg/l End point: Growth Exposure time: 72 Analytical moniton Method: OECD T GLP: Yes Remarks: nomina	2 h ing: Yes est Guideline 201
				NOEC (Pseudokin 100 mg/l End point: Growth Exposure time: 72 Analytical monitor Method: OECD T GLP: Yes Remarks: nomina	2 h ing: Yes est Guideline 201

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Pers	istence and degradab	oility		
<u>Com</u>	ponents:			
	ninum hydroxide: egradability	:		nethods for determining biodegradability are o inorganic substances.
Bioa	ccumulative potential	I		
<u>Com</u>	ponents:			
Alum	ninum hydroxide:			
	ion coefficient: n- nol/water	:	Remarks: Not a	pplicable
Mobi	lity in soil			
No da	ata available			
Othe	r adverse effects			
<u>Prod</u> Addit matic	ional ecological infor-	:		l data are not available. ïcant effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conserva- : tion and Recovery Authoriza- tion Act	If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)
Waste from residues :	The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Empty containers retain product residue; observe all precau- tions for product. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.





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SECTION 14. TRANSPORT INFORMATION

International Regulations

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.

Domestic regulation

49 CFR Not regulated as a dangerous good

Hazard and Handling Notes. Not dangerous cargo Keep separated from foodstuffs

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA 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	:	No SARA Hazards
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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

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Iron hydroxide oxide yellow	51274-00-1	> 1
Aluminum hydroxide	21645-51-2	10 - 20
sodium sulphate	7757-82-6	< 1

California Prop. 65





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

Potential exposure to some or all of the California Proposition 65 chemicals in this product have been determined to be below the No Significant Risk Level (NSRL).

TSCA inventory

TSCA

: All substances listed as active on the TSCA inventory

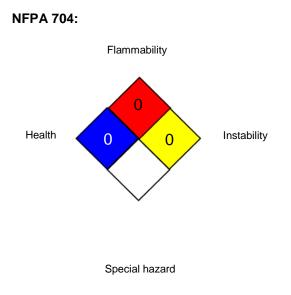
TSCA list

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



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)
CAL PEL	:	California permissible exposure limits for chemical contami- nants (Title 8, Article 107)
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
CAL PEL / PEL	:	Permissible exposure limit

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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 - Verv Persistent and Verv Bioaccumulative

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The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.