

Versi 7.0	ion	Revision Date: 11/06/2018		DS Number: 28695-00038	Date of last issue: 09/04/2018 Date of first issue: 02/27/2017
SECT	TION 1.	DENTIFICATION			
F	Product	t name	:	DryFilm RA/IPA	
ę	SDS-Id	entcode	:	130000001461	
Г	Manufa	acturer or supplier's	deta	ails	
(	Compa	ny name of supplier	:	The Chemours C	ompany FC, LLC
/	Address	S	:	1007 Market Stre Wilmington, DE 1	et 9899 United States of America (USA)
-	Telepho	one	:	1-844-773-CHEM	(outside the U.S. 1-302-773-1000)
I	Emerge	ency telephone	:		cy: 1-866-595-1473 (outside the U.S. 1-302- nsport emergency: +1-800-424-9300 (outside 527-3887)
I	Recom	mended use of the c	hen	nical and restriction	ons on use
F	Recom	mended use	:	Dry lubricant	
F	Restrict	ions on use	:	tions involving im internal body fluic written agreemen	only. ell Chemours™ materials in medical applica- plantation in the human body or contact with s or tissues unless agreed to by Seller in a t covering such use. For further information, ur Chemours representative.

#### SECTION 2. HAZARDS IDENTIFICATION

# GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:	Category 2
Eye irritation	:	Category 2A
Specific target orga systemic toxicity - si exposure		Category 3
GHS label element Hazard pictograms	<b>s</b> :	
Signal Word	:	Danger
Hazard Statements	:	H225 Highly flammable liquid and vapor.



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			erious eye irritation. e drowsiness or dizziness.
Preca	utionary Statements	No smoking. P233 Keep con P241 Use explo ment. P242 Use only P243 Take preo P261 Avoid bre P264 Wash ski P271 Use only	ay from heat/sparks/open flames/hot surfaces. tainer tightly closed. osion-proof electrical/ ventilating/ lighting/ equip non-sparking tools. cautionary measures against static discharge. athing mist or vapors. n thoroughly after handling. outdoors or in a well-ventilated area. tective gloves/ eye protection/ face protection.
		all contaminate P304 + P340 + and keep comfo CENTER/docto P305 + P351 + for several minu- to do. Continue	P353 IF ON SKIN (or hair): Take off immediate d clothing. Rinse skin with water/shower. P312 IF INHALED: Remove person to fresh air ortable for breathing. Call a POISON r if you feel unwell. P338 IF IN EYES: Rinse cautiously with water utes. Remove contact lenses, if present and ea rinsing. eye irritation persists: Get medical advice/ atter
		<b>Storage:</b> P403 + P235 S P405 Store lock	tore in a well-ventilated place. Keep cool. ked up.
		<b>Disposal:</b> P501 Dispose o posal plant.	of contents/ container to an approved waste dis

The thermal decomposition vapors of fluorinated plastics may cause polymer fume fever with flulike symptoms in humans, especially when smoking contaminated tobacco. Vapors may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Fluoropolymer dispersions

#### Components

Chemical name	CAS-No.	Concentration (% w/w)				
Propan-2-ol	67-63-0	>= 70 - < 90				
Actual apparentation in withhold on a trade approx						

Actual concentration is withheld as a trade secret

#### **SECTION 4. FIRST AID MEASURES**



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Ge	eneral advice	:	advice immediate	cident or if you feel unwell, seek medical ely. persist or in all cases of doubt seek medical		
lf i	nhaled	:	If inhaled, remove Get medical atter	e to fresh air. ntion if symptoms occur.		
In	case of skin contact	:	Remove contami	t, immediately flush skin with plenty of water. nated clothing and shoes. ntion if symptoms occur.		
In	case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.			
lf :	swallowed	:	Get medical atter	NOT induce vomiting. ntion if symptoms occur. oughly with water.		
ar	ost important symptoms Id effects, both acute and layed	:	Polymer fume few Eye contact may Irritation Causes serious e	provoke the following symptoms		
Pr	otection of first-aiders	:	and use the record	ers should pay attention to self-protection, mmended personal protective equipment al for exposure exists.		
No	otes to physician	:	Treat symptomat	ically and supportively.		

### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Carbon oxides Hydrogen fluoride carbonyl fluoride potentially toxic fluorinated compounds



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				aerosolized partic	ulates
	Specific ods	c extinguishing meth-	:	cumstances and t Use water spray t	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do
		l protective equipment fighters	:	In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.
SEC	TION 6	. ACCIDENTAL RELE	AS	E MEASURES	
	tive equ	al precautions, protec- uipment and emer- procedures	:	Remove all sourc Ventilate the area Use personal prot Follow safe handl equipment recom	ective equipment. ing advice and personal protective
	Enviror	nmental precautions	:	Prevent further lea Prevent spreading oil barriers). Retain and dispos	e environment must be avoided. akage or spillage if safe to do so. g over a wide area (e.g., by containment or se of contaminated wash water. should be advised if significant spillages ed.
		ds and materials for Iment and cleaning up	:	Suppress (knock jet. For large spills, pr containment to ke	s should be used. absorbent material. down) gases/vapors/mists with a water spray rovide diking or other appropriate ep material from spreading. If diked material store recovered material in appropriate

#### SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use with local exhaust ventilation. Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure

Clean up remaining materials from spill with suitable

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

Sections 13 and 15 of this SDS provide information regarding

employed in the cleanup of releases. You will need to

determine which regulations are applicable.

certain local or national requirements.

container.

absorbent.

### SAFETY DATA SHEET

## DryFilm RA/IPA



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Advic	e on safe handling	Do not swallow. Do not get in ey Avoid prolonged Handle in accor practice, based assessment Non-sparking to Keep container Keep away from Take precautior	es. d or repeated contact with skin. dance with good industrial hygiene and safety on the results of the workplace exposure pols should be used.
Condi	tions for safe storage	Store locked up Keep tightly clos Keep in a cool, Store in accorda	
Mater	ials to avoid	Strong oxidizing Organic peroxid Flammable solid Pyrophoric liquid Pyrophoric solid Self-heating sub	les ds ds ls ostances and mixtures I mixtures which in contact with water emit

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m <sup>3</sup>	NIOSH REL
		ST	500 ppm 1,225 mg/m <sup>3</sup>	NIOSH REL
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z-1

### Occupational exposure limits of decomposition products

	Components	CAS-No.	Value type	Control parame-	Basis
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			(Form of exposure)	ters / Permissible concentration	
Hydro	ofluoric acid	7664-39-3	TWA	3 ppm 2.5 mg/m <sup>3</sup>	NIOSH REL
			С	6 ppm 5 mg/m <sup>3</sup>	NIOSH REL
			TWA	3 ppm	OSHA Z-2
			TWA	0.5 ppm (Fluorine)	ACGIH
			С	2 ppm (Fluorine)	ACGIH
Carbo	onyl difluoride	353-50-4	TWA	2 ppm	ACGIH
			STEL	5 ppm	ACGIH
			ST	5 ppm 15 mg/m <sup>3</sup>	NIOSH REL
			TWA	2 ppm 5 mg/m <sup>3</sup>	NIOSH REL
Carbo	on dioxide	124-38-9	TWA	5,000 ppm	ACGIH
			STEL	30,000 ppm	ACGIH
			TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	OSHA Z-1
			TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	NIOSH REL
			ST	30,000 ppm 54,000 mg/m <sup>3</sup>	NIOSH REL
Carbo	on monoxide	630-08-0	TWA	25 ppm	ACGIH
			TWA	35 ppm 40 mg/m³	NIOSH REL
			С	200 ppm 229 mg/m <sup>3</sup>	NIOSH REL
			TWA	50 ppm 55 mg/m <sup>3</sup>	OSHA Z-1

#### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentra- tion	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work- week	40 mg/l	ACGIH BEI

Engineering measures

: Processing may form hazardous compounds (see section 10).

Minimize workplace exposure concentrations.

Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential

Use with local exhaust ventilation.

### SAFETY DATA SHEET



# DryFilm RA/IPA

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Perso	onal protective equip	ment		
Resp	iratory protection	:	maintain vapor e concentrations a unknown, appro Follow OSHA re use NIOSH/MSH by air purifying r hazardous chem supplied respira release, exposu	al exhaust ventilation is recommended to exposures below recommended limits. Where are above recommended limits or are priate respiratory protection should be worn. spirator regulations (29 CFR 1910.134) and HA approved respirators. Protection provided espirators against exposure to any nical is limited. Use a positive pressure air tor if there is any potential for uncontrolled re levels are unknown, or any other here air purifying respirators may not provide tion.
Hand	protection			
Ma	aterial	:	Chemical-resista	ant gloves
Re	emarks	:	on the concentra time is not deter For special appl resistance to che gloves with the g product is flamm	o protect hands against chemicals depending ation specific to place of work. Breakthrough mined for the product. Change gloves often! ications, we recommend clarifying the emicals of the aforementioned protective glove manufacturer. Take note that the nable, which may impact the selection of hand in hands before breaks and at the end of
Eye p	protection	:	Wear the followi Safety goggles	ng personal protective equipment:
Skin a	and body protection	:	resistance data potential. Wear the followi Flame retardant assessment der atmospheres or Skin contact mu	te protective clothing based on chemical and an assessment of the local exposure ng personal protective equipment: antistatic protective clothing, unless nonstrates that the risk of explosive flash fires is low st be avoided by using impervious protective aprons, boots, etc).
Hygie	ene measures	:	located close to When using do	flushing systems and safety showers are the working place. not eat, drink or smoke. ated clothing before re-use.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid	
Color	: translucent, white to off-white	
Odor	: alcohol-like	



Odor Threshold:No data availablepH:4 - 7Metting point/freezing point:128 °F / -89 °CInitial boiling point and boiling::180 °F / 82 °Crange::54 °F / 12 °CFlash point::No data availableFlammability (solid, gas):No data availableFlammability (liquids):No data availableIdammability (liquids):No data availableUpper explosion limit / Upper::2.0 %(V)tharmability limit::2.0 %(V)Vapor pressure:::4.4 hPa (68 °F / 20 °C)Relative vapor density::::Vapor pressure::::Vapor pressure::::Vapor pressure::::Vapor pressure::::Vapor pressure::::Vapor solubility (ies)::::Water solubility::::Vator solubility (ies)::::Vator properties::::Autoignition temperature::::Viscosity, kinematic::::Viscosity, kinematic::::Viscosity, kinematic::::Viscosity:::: <th>Versic 7.0</th> <th></th> <th>vision Date: 06/2018</th> <th></th> <th>S Number: 8695-00038</th> <th>Date of last issue: 09/04/2018 Date of first issue: 02/27/2017</th>	Versic 7.0		vision Date: 06/2018		S Number: 8695-00038	Date of last issue: 09/04/2018 Date of first issue: 02/27/2017
Melting point/freezing point:::<:::::<	C	Odor Thres	hold	:	No data available	9
Initial boiling point and boiling:180 °F / 82 °CrangeFlash point:54 °F / 12 °CEvaporation rate:No data availableFlammability (solid, gas):No data availableFlammability (solid, gas):No data availableFlammability (liquids):No data availableUpper explosion limit / Upper:12.0 %(V)flammability limit:2.0 %(V)flammability limit:2.0 %(V)Vapor pressure:2.0 %(V)Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies):partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:Not explosive	р	ЭΗ		:	4 - 7	
rangeFlash point:54 °F / 12 °CFlash point::No data availableFlammability (solid, gas):No data availableFlammability (liquids):No data availableUpper explosion limit / Upper:12.0 %(V)flammability limit:2.0 %(V)flammability limit:2.0 %(V)flammability limit:2.0 %(V)flammability limit::Vapor pressure:2.0 %(V)Relative vapor density::Water solubility::Mater solubility::Partition coefficient: n- octanol/water::Autoignition temperature::Pacomposition temperature::Viscosity Viscosity, kinematic::Not axplicable::Cxidizing properties:Not explosiveOxidizing properties::Not explosive::	N	Aelting poir	nt/freezing point	:	-128 °F / -89 °C	
Evaporation rate:No data availableFlammability (solid, gas):Not applicableFlammability (liquids):No data availableUpper explosion limit / Upper:12.0 %(V)flammability limit:2.0 %(V)flammability limit:2.0 %(V)Vapor pressure:44 hPa (68 °F / 20 °C)Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partity solublePartition coefficient: n- octanol/water:750 °F / 399 °CAutoignition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:No data availableExplosive properties:No data availableCixilizing properties:No texplosive			g point and boiling	:	180 °F / 82 °C	
Flammability (solid, gas):Not applicableFlammability (liquids):No data availableUpper explosion limit / Upper:12.0 %(V)flammability limit:2.0 %(V)flammability limit::Vapor pressure::Relative vapor density::Relative density::Solubility(ies)::Water solubility::Partition coefficient: n- octanol/water::Autoignition temperature::Solubility, kinematic::Viscosity, kinematic::Viscosity, kinematic::Kaposive properties::Not axplicable:Cxidizing properties::Not axplicable:Cxidizing properties:Not explosive:	F	lash point		:	54 °F / 12 °C	
Flammability (liquids):No data availableUpper explosion limit / Upper flammability limit:12.0 %(V)Lower explosion limit / Lower flammability limit:2.0 %(V)Vapor pressure::2.0 %(V)Relative vapor density::2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature Viscosity Viscosity, kinematic:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:Not explosive	E	Evaporatior	n rate	:	No data available	)
Upper explosion limit / Upper:12.0 %(V)flammability limit:2.0 %(V)Lower explosion limit / Lower:2.0 %(V)flammability limit:2.0 %(V)Vapor pressure:44 hPa (68 °F / 20 °C)Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.	F	lammabilit	y (solid, gas)	:	Not applicable	
flammability limit:2.0 %(V)Lower explosion limit / Lower:2.0 %(V)Vapor pressure:44 hPa (68 °F / 20 °C)Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.	F	lammabilit	y (liquids)	:	No data available	
flammability limitVapor pressure:44 hPa (68 °F / 20 °C)Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.				:	12.0 %(V)	
Relative vapor density:2.07 (Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.				:	2.0 %(V)	
(Air = 1.0)Relative density:0.96 (72 °F / 22 °C)Solubility(ies) Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.	٧	/apor pres	sure	:	44 hPa (68 °F / 2	0 °C)
Solubility(ies) Water solubility: partly solublePartition coefficient: n- octanol/water: Not applicableAutoignition temperature: 750 °F / 399 °CDecomposition temperature: 572 °F / 300 °CViscosity Viscosity, kinematic: Not data availableExplosive properties: Not explosiveOxidizing properties: The substance or mixture is not classified as oxidizing.	F	Relative va	oor density	:		
Water solubility:partly solublePartition coefficient: n- octanol/water:Not applicableAutoignition temperature:750 °F / 399 °CDecomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Not data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.	F	Relative de	nsity	:	0.96 (72 °F / 22 °	C)
octanol/waterAutoignition temperature:Decomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:Explosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.	S			:	partly soluble	
Decomposition temperature:572 °F / 300 °CViscosity Viscosity, kinematic:No data availableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.				:	Not applicable	
Viscosity ·   Viscosity, kinematic :   Explosive properties :   Not explosive   Oxidizing properties :   The substance or mixture is not classified as oxidizing.	A	Autoignitior	temperature	:	750 °F / 399 °C	
Viscosity, kinematic: No data availableExplosive properties: Not explosiveOxidizing properties: The substance or mixture is not classified as oxidizing.	C	Decomposi	tion temperature	:	572 °F / 300 °C	
Oxidizing properties : The substance or mixture is not classified as oxidizing.	V		y, kinematic	:	No data available	9
	E	Explosive p	roperties	:	Not explosive	
Particle size : Not applicable	C	Dxidizing p	roperties	:	The substance of	r mixture is not classified as oxidizing.
	F	Particle size	9	:	Not applicable	

### SECTION 10. STABILITY AND REACTIVITY

Reactivity

: Not classified as a reactivity hazard.



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С	hemical stability	:	Stable under nor	mal conditions.
	ossibility of hazardous reac- ons	:	Vapors may form Can react with st	e liquid and vapor. a explosive mixture with air. rong oxidizing agents. mposition products will be formed at elevated
C	onditions to avoid	:	Heat, flames and	l sparks.
In	compatible materials	:	Oxidizing agents	
	azardous decomposition p nermal decomposition	orodi :	ucts Hydrofluoric acid Carbonyl difluorid Carbon dioxide Carbon monoxide	de

#### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Inhalation Skin contact Ingestion Eye contact

#### Acute toxicity

Not classified based on available information.

#### **Components:**

### Propan-2-ol:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 25 mg/l Exposure time: 6 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg

#### Skin corrosion/irritation

Not classified based on available information.

#### **Components:**

#### Propan-2-ol:

Species	:	Rabbit
Result	:	No skin irritation

#### Serious eye damage/eye irritation

Causes serious eye irritation.



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Com	oonents:		
Propa	an-2-ol:		
Speci	es	: Rabbit	
Resu	lt	: Irritation to ey	yes, reversing within 21 days
Resp	iratory or skin sensi	tization	
	sensitization lassified based on ava	ailable information.	
-	iratory sensitization lassified based on ava	ailable information.	
Com	oonents:		
Propa	an-2-ol:		
Test <sup>-</sup>		: Buehler Test	
	es of exposure	: Skin contact	
Speci Metho		: Guinea pig : OECD Test (	Luidolino 406
Resu		: negative	
Germ	cell mutagenicity		
	lassified based on ava	ailable information.	
Com	oonents:		
Propa	an-2-ol:		
Geno	toxicity in vitro	: Test Type: B Result: negat	acterial reverse mutation assay (AMES) ive
		Test Type: In Result: negat	vitro mammalian cell gene mutation test ive
Geno	toxicity in vivo	cytogenetic a	
		Species: Mou Application R Result: negat	oute: Intraperitoneal injection
	nogenicity lassified based on ava	ailable information.	
	oonents:		
Propa	an-2-ol:		
Speci		: Rat	

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	104 weeks
Method	:	OECD Test Guideline 451
Result	:	negative

**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.



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OSH			this product pre regulated carcin	sent at levels greater than or equal to 0.1% is nogens.
NTP				ent at levels greater than or equal to 0.1% is ed carcinogen by NTP.
Not cl	oductive toxicity assified based on ava	ailable	information.	
	<u>oonents:</u>			
•	an-2-ol: s on fertility	:	Test Type: Two Species: Rat Application Rou Result: negativ	
Effect	s on fetal developme	nt :	Test Type: Eml Species: Rat Application Rou Result: negativ	
STOT	-single exposure			
	ause drowsiness or c	dizzine	SS.	
Comp	oonents:			
Propa	an-2-ol:			
Asses	ssment	:	May cause dro	wsiness or dizziness.
STOT	- repeated exposure			
	assified based on ava		information.	
Repe	ated dose toxicity			
Comp	oonents:			
Propa	an-2-ol:			
Speci	es	:	Rat	
NOAE		:	12.5 mg/l	or)
	cation Route sure time	:	inhalation (vap 104 Weeks	01)
•	ation toxicity assified based on ava	ailable	information.	
CTION	12. ECOLOGICAL IN	IFORM	IATION	
Ecoto	oxicity			
Com	oonents:			



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Тох	icity to fish	:	LC50 (Pimephale Exposure time: 9	s promelas (fathead minnow)): 9,640 mg/l 5 h
	icity to daphnia and other atic invertebrates	:	EC50 (Daphnia m Exposure time: 24	nagna (Water flea)): > 10,000 mg/l 4 h
Тох	icity to microorganisms	:	EC50 (Pseudomo Exposure time: 10	onas putida): > 1,050 mg/l 5 h
Per	sistence and degradabil	ity		
Cor	nponents:			
	<b>pan-2-ol:</b> degradability	:	Result: rapidly de	gradable
Bio	accumulative potential			
Cor	nponents:			
Parl	<b>pan-2-ol:</b> iition coefficient: n- nol/water	:	log Pow: 0.05	
	<b>bility in soil</b> data available			
	<b>er adverse effects</b> data available			
SECTIO	N 13. DISPOSAL CONSI	DEF	RATIONS	
Dis	posal methods			

Waste from residues	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

### SECTION 14. TRANSPORT INFORMATION

### International Regulations

UNRTDG

UN number	:	UN 1219
Proper shipping name		ISOPROPANOL SOLUTION
Class	:	3



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	cking group oels	:	 3	
UN Pro Cla Pa Lal Pa airo Pa	<b>FA-DGR</b> I/ID No. oper shipping name ass cking group bels cking instruction (cargo craft) cking instruction (passen- r aircraft)		UN 1219 Isopropanol solut 3 II Flammable Liquid 364 353	
UN	<b>DG-Code</b> I number oper shipping name	:	UN 1219 ISOPROPANOL	SOLUTION
Lal Err	ass cking group bels nS Code rrine pollutant		3 II 3 F-E, S-D no	

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

Not applicable for product as supplied.

#### Domestic regulation

<b>49 CFR</b> UN/ID/NA number Proper shipping name	: UN 1219 : Isopropanol SOLUTION
Class	: 3
Packing group	: II
Labels	: FLAMMABLE LIQUID
ERG Code	: 129
Marine pollutant	: no

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### SECTION 15. REGULATORY INFORMATION

#### **EPCRA - Emergency Planning and Community Right-to-Know**

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
2,2'-Iminodiethanol	111-42-2	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.



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SAR	A 302 Extremely Haza	rdous Substand	ces Threshold Plannin	g Quantity	
This r	material does not conta	in any compone	nts with a section 302 E	HS TPQ.	
SAR	A 311/312 Hazards	Serious e	e (gases, aerosols, liqui ye damage or eye irritati arget organ toxicity (sing		
SAR			ving components are subject to reporting levels ed by SARA Title III, Section 313:		
		Propan-2-	ol 67-63-0	>= 70 - < 90 %	
US S	tate Regulations				
Penn	sylvania Right To Kn	ow			
	Propan-2-ol Fluoropolymer Fluoropolymer			67-63-0 Trade secret Trade secret	
forma	n to the State of Califo ation go to www.P65Wa ornia List of Hazardou	arnings.ca.gov.	h defects or other repro	ductive harm. For more in-	
	Propan-2-ol			67-63-0	
Califo	ornia Permissible Exp	osure Limits fo	or Chemical Contamina	ants	
	Propan-2-ol			67-63-0	
ECTION	16. OTHER INFORM	TION			
Furth	er information				
NFP	A 704:		HMIS® IV:		
	Flammability		HEALTH	/ 2	
	Health	Instability	FLAMMABILITY	3	
		ility	PHYSICAL HAZ	ARD 0	
	Special hazard.		scale, with 0 repres ards or risks, and 4 cant hazards or ris	based on a 0-4 rating senting minimal haz- 4 representing signifi- ks. The "*" represents vhile the "/" represents	

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the absence of a chronic hazard.



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For further information contact the local Chemours office or nominated distributors. All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

#### Full text of other abbreviations

ACGIH ACGIH BEI NIOSH REL OSHA Z-1	:	USA. ACGIH Threshold Limit Values (TLV) ACGIH - Biological Exposure Indices (BEI) USA. NIOSH Recommended Exposure Limits USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim- its for Air Contaminants
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
ACGIH / C	:	Ceiling limit
NIOSH REL / TWA		Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-2 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances: 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; 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



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Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Revision Date : 11/06/2018

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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