MATERION

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or Yttrium-Calcium Fluoride

designation of the mixture

Synonyms None. 2DQ **Document number Materion Code** 2DQ

Issue date 21-May-2015

Version number 03

Revision date 15-January-2018 Supersedes date 04-February-2016

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Not available. Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Materion Advanced Chemicals Inc.

Address 407 N. 13th Street

> 1316 W. St. Paul Avenue Milwaukee, WI 53233

United States Milwaukee

Division Telephone 414.212.0257

advancedmaterials@materion.com e-mail

Contact person Noreen Atkinson

1.4. Emergency telephone

number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary Not classified for health hazards. However, occupational exposure to the mixture or substance(s)

may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None. Signal word None.

Hazard statements The mixture does not meet the criteria for classification.

Precautionary statements

Prevention Observe good industrial hygiene practices.

Wash hands after handling. Response

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Supplemental label

For further information, please contact the Product Stewardship Department at +1.800.862.4118.

information

None known. 2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Material name: Yttrium-Calcium Fluoride SDS FU

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Yttrium fluoride	0 - 95	13709-49-4 237-257-5	-	-	#
Classification:	Skin Irrit. 2;H315, Eye I RE 2;H373	rrit. 2;H319, STOT	SE 3;H335, Repr. 2;H361, Lac	ct.;H362, STOT	
Calcium fluoride	0 - 5	7789-75-5 232-188-7	-	-	#
Classification:	-				

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008. DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance. PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur. 4.2. Most important Direct contact with eyes may cause temporary irritation.

symptoms and effects, both

acute and delayed

4.3. Indication of any

immediate medical attention and special treatment

needed

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

media

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising

from the substance or

mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special firefighting

procedures

Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental

precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for Stop the flow of material, if this is without risk. Following product recovery, flush area with water.

containment and cleaning up

Material name: Yttrium-Calcium Fluoride SDS FU 2DQ Version #: 03 Revision date: 15-January-2018 Issue date: 21-May-2015

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe

Avoid prolonged exposure. Observe good industrial hygiene practices.

handling

7.2. Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of

the SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Components	Туре	Value	Form
Calcium fluoride (CAS 7789-75-5)	MAK	2,5 mg/m3	Inhalable fraction.
•	STEL	12,5 mg/m3	Inhalable fraction.
Yttrium fluoride (CAS 13709-49-4)	MAK	2,5 mg/m3	Inhalable fraction.
•	STEL	12,5 mg/m3	Inhalable fraction.
Belgium. Exposure Limit Values.			
Components	Туре	Value	
Calcium fluoride (CAS 7789-75-5)	TWA	2,5 mg/m3	

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work **Components Value** Type

Yttrium fluoride (CAS **TWA** 2,5 mg/m3 13709-49-4)

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Туре	Value
Calcium fluoride (CAS 7789-75-5)	MAC	2,5 mg/m3
Yttrium fluoride (CAS 13709-49-4)	MAC	2,5 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Туре	Value	
Calcium fluoride (CAS 7789-75-5)	Ceiling	5 mg/m3	
	TWA	2,5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	Ceiling	5 mg/m3	
•	TWA	2,5 mg/m3	
Denmark. Exposure Limit Values			
Components	Туре	Value	

Components

TLV Calcium fluoride (CAS 2,5 mg/m3 7789-75-5)

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Туре	Value	
Calcium fluoride (CAS 7789-75-5)	TWA	2,5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA	2,5 mg/m3	
Finland. Workplace Exposure	Limits		
Components	Туре	Value	
Calcium fluoride (CAS 7789-75-5)	TWA	2,5 mg/m3	

Material name: Yttrium-Calcium Fluoride

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France. Threshold Limit Values Components	s (VLEP) for Occupational Exp Type	osure to Chemicals in France, INRS ED 984 Value
Calcium fluoride (CAS 7789-75-5)	VME	2,5 mg/m3
/ttrium fluoride (CAS 3709-49-4)	VME	2,5 mg/m3
.5 .7		1 mg/m3
Hungary. OELs. Joint Decree o Components	on Chemical Safety of Workpla Type	ces Value
Calcium fluoride (CAS 7789-75-5)	STEL	10 mg/m3
White on the CAC	TWA	2,5 mg/m3
/ttrium fluoride (CAS .3709-49-4)	STEL	10 mg/m3
isoland OELs Bosulation 154	TWA	2,5 mg/m3
Components	/1999 on occupational expose Type	Value
Calcium fluoride (CAS 7789-75-5)	TWA	0,6 mg/m3
Latvia. OELs. Occupational exp Components	posure limit values of chemica Type	l substances in work environment Value
Calcium fluoride (CAS 7789-75-5)	STEL	2,5 mg/m3
709-73-3)	TWA	0,5 mg/m3
ttrium fluoride (CAS .3709-49-4)	TWA	2,5 mg/m3
Lithuania. OELs. Limit Values Components	for Chemical Substances, Gen Type	eral Requirements Value
Calcium fluoride (CAS 7789-75-5)	TWA	2,5 mg/m3
/ttrium fluoride (CAS 13709-49-4)	TWA	2,5 mg/m3
•	ional exposure limit values (A Type	nnex I), Memorial A Value
Calcium fluoride (CAS	TWA	2,5 mg/m3
7789-75-5) /ttrium fluoride (CAS 13709-49-4)	TWA	2,5 mg/m3
•	osure Limit Values (L.N. 227.	of Occupational Health and Safety Authority Act (C
Components	Туре	Value
Calairea fluorida (CAC	TWA	2,5 mg/m3
`		
7789-75-5) ⁄ttrium fluoride (CAS	TWA	2,5 mg/m3
7789-75-5) /ttrium fluoride (CAS 13709-49-4) Netherlands. OELs (binding)	TWA	
7789-75-5) /ttrium fluoride (CAS .3709-49-4) Netherlands. OELs (binding)		2,5 mg/m3 Value
7789-75-5) (ttrium fluoride (CAS L3709-49-4) Netherlands. OELs (binding) Components Calcium fluoride (CAS 7789-75-5)	TWA Type STEL	Value 2 mg/m3
7789-75-5) (ttrium fluoride (CAS L3709-49-4) Netherlands. OELs (binding) Components Calcium fluoride (CAS 7789-75-5) (ttrium fluoride (CAS	TWA Type	Value
7789-75-5) Yttrium fluoride (CAS 13709-49-4) Netherlands. OELs (binding) Components Calcium fluoride (CAS 7789-75-5) Yttrium fluoride (CAS 13709-49-4) Norway. Administrative Norms	TWA Type STEL	Value 2 mg/m3 2 mg/m3
Calcium fluoride (CAS 7789-75-5) Yttrium fluoride (CAS 13709-49-4) Netherlands. OELs (binding) Components Calcium fluoride (CAS 7789-75-5) Yttrium fluoride (CAS 13709-49-4) Norway. Administrative Norms Components Calcium fluoride (CAS 7789-75-5)	TWA Type STEL STEL s for Contaminants in the Wor	Value 2 mg/m3 2 mg/m3 kplace

Components	e-Law n. 290/2001 (Jo Typ	·-		alue	
Calcium fluoride (CAS 7789-75-5)	TWA	1	2,	5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA			5 mg/m3	
Portugal. VLEs. Norm Components	on occupational expos Typ			6) alue	
Calcium fluoride (CAS 7789-75-5)	TWA	1	2,	5 mg/m3	
Romania. OELs. Protec Components	ction of workers from e Typ	=	_	the workpla alue	ce
Calcium fluoride (CAS 7789-75-5)	STEI	_	2	mg/m3	
	TWA	١	1	mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA			5 mg/m3	
Slovakia. OELs. Regula Components	ation No. 300/2007 co Typ			work with online	chemical agents
Calcium fluoride (CAS 7789-75-5)	TWA	1	2,	5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA	1	2,	5 mg/m3	
Spain. Occupational E Components	xposure Limits Typ	e	Va	alue	
Calcium fluoride (CAS 7789-75-5)	TWA	1	2,	5 mg/m3	
Sweden. OELs. Work I Components	Environment Authority Typ			mit Values (alue	AFS 2015:7)
Calcium fluoride (CAS 7789-75-5)	TWA	1	2	mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA	1	2	mg/m3	
Switzerland. SUVA Gro Components	enzwerte am Arbeitspla Typ		Va	alue	Form
Calcium fluoride (CAS 7789-75-5)	STEI	_	4	mg/m3	Inhalable dust.
,	TWA	1	1	mg/m3	Inhalable dust.
Yttrium fluoride (CAS 13709-49-4)	STEI			mg/m3	Inhalable dust.
	TWA	1	1	mg/m3	Inhalable dust.
UK. EH40 Workplace E Components	exposure Limits (WELs) Typ		Va	alue	
Calcium fluoride (CAS 7789-75-5)	TWA	1	2,	5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA	1	2,	5 mg/m3	
EU. Indicative Exposu Components	re Limit Values in Direc Typ			C, 2006/15/ alue	EC, 2009/161/EU
Calcium fluoride (CAS 7789-75-5)	TWA			5 mg/m3	
Yttrium fluoride (CAS 13709-49-4)	TWA	1	2,	5 mg/m3	
ogical limit values					
Czech Republic. Limit 2, Government Decree Components	Values for Indictators 432/2003 Sb. Value	of Biological Expo	osure Tests in Specimen	Urine and Bl Sampling	
Calcium fluoride (CAS	60 µmol/mmol	Fluoride	Creatinine in	*	

urine

Material name: Yttrium-Calcium Fluoride

7789-75-5)

SDS EU

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Czech Republic. Limit Values for Indictators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling time
	10 mg/g	Fluoride	Creatinine in urine	*
Yttrium fluoride (CAS 13709-49-4)	60 µmol/mmol	Fluoride	Creatinine in urine	*
	10 mg/g	Fluoride	Creatinine in	*

^{* -} For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling time	
Calcium fluoride (CAS 7789-75-5)	3 mg/g	Fluorures	Creatinine in urine	*	
	10 mg/g	Fluorures	Creatinine in urine	*	
Yttrium fluoride (CAS 13709-49-4)	3 mg/g	Fluorures	Creatinine in urine	*	
·	10 mg/g	Fluorures	Creatinine in urine	*	

^{* -} For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling time
Calcium fluoride (CAS 7789-75-5)	7 mg/g	Fluorid	Creatinine in urine	*
	4 mg/g	Fluorid	Creatinine in urine	*
Yttrium fluoride (CAS 13709-49-4)	7 mg/g	Fluorid	Creatinine in urine	*
•	4 mg/g	Fluorid	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

Components	Value	Determinant	Specimen	Sampling time
Calcium fluoride (CAS 7789-75-5)	7 mg/g	fluoride	Creatinine in urine	*
	4 mg/g	fluoride	Creatinine in urine	*
	42 µmol/mmol	fluoride	Creatinine in urine	*
	24 µmol/mmol	fluoride	Creatinine in urine	*
Yttrium fluoride (CAS 13709-49-4)	7 mg/g	fluoride	Creatinine in urine	*
	4 mg/g	fluoride	Creatinine in urine	*
	42 µmol/mmol	fluoride	Creatinine in urine	*
	24 µmol/mmol	fluoride	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

chemical agencs, Aimex 2							
Components	Value	Determinant	Specimen	Sampling time			
Calcium fluoride (CAS 7789-75-5)	7 mg/g	Fluorides	Creatinine in urine	*			
	4 mg/g	Fluorides	Creatinine in urine	*			
Yttrium fluoride (CAS 13709-49-4)	7 mg/g	Fluorides	Creatinine in urine	*			

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents. Annex 2

Components	Value	Determinant	Specimen	Sampling time
	4 mg/g	Fluorides	Creatinine in	*
			urine	

^{* -} For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4							
Components	Value	Determinant	Specimen	Sampling time			
Calcium fluoride (CAS 7789-75-5)	8 mg/l	Fluoruros	Urine	*			
Yttrium fluoride (CAS 13709-49-4)	8 mg/l	Fluoruros	Urine	*			

^{* -} For sampling details, please see the source document.

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels

(DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

8.2. Exposure controls

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion

with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and

before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to

remove contaminants.

Environmental exposure

controls

Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical stateSolid.FormSolid.

ColourNot available.OdourNot available.Odour thresholdNot available.pHNot available.

Melting point/freezing point 1403 °C (2557,4 °F) estimated **Initial boiling point and** 2500 °C (4532 °F) estimated

boiling range

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available

SDS FU

Upper/lower flammability or explosive limits

Flammability limit - lower Not available.

(%)

Flammability limit -

Not available.

upper (%)

0,00001 hPa estimated Vapour pressure

Vapour density Not available. Relative density Not available.

Solubility(ies)

Solubility (water) Not available. Not available. **Partition coefficient**

(n-octanol/water)

Auto-ignition temperature Not available. **Decomposition temperature** Not available. **Viscosity** Not available. **Explosive properties** Not explosive. **Oxidising properties** Not oxidising.

9.2. Other information

Density 3,18 g/cm3 estimated

Specific gravity 3,18 estimated

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous No dangerous reaction known under conditions of normal use.

reactions

10.4. Conditions to avoid Contact with incompatible materials.

10.5. Incompatible materials Strong oxidising agents.

10.6. Hazardous No hazardous decomposition products are known.

decomposition products

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected. Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

Symptoms Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity

Components Test results Species

Calcium fluoride (CAS 7789-75-5)

Material name: Yttrium-Calcium Fluoride

Acute Oral

LD50 Rat

4250 mg/kg

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible. Serious eye damage/eye Due to partial or complete lack of data the classification is not possible.

irritation

Respiratory sensitisation Due to partial or complete lack of data the classification is not possible. Skin sensitisation Due to partial or complete lack of data the classification is not possible. Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible. Carcinogenicity Due to partial or complete lack of data the classification is not possible.

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^{*} Estimates for product may be based on additional component data not shown.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

IARC Monographs. Overall Evaluation of Carcinogenicity

Calcium fluoride (CAS 7789-75-5) 3 Not classifiable as to carcinogenicity to humans. Yttrium fluoride (CAS 13709-49-4) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible. Specific target organ toxicity Due to partial or complete lack of data the classification is not possible.

- single exposure

Specific target organ toxicity - repeated exposure

Due to partial or complete lack of data the classification is not possible.

Aspiration hazard

information

Due to partial or complete lack of data the classification is not possible.

Mixture versus substance

No information available.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and

degradability

No data is available on the degradability of this product.

12.3. Bioaccumulative

potential

No data available.

Partition coefficient

n-octanol/water (log Kow)

Not available.

Bioconcentration factor (BCF) Not available. 12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

Not available.

assessment 12.6. Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.7. Additional information

Estonia Dangerous substances in groundwater Data

Calcium fluoride (CAS 7789-75-5) Fluoride (as F-ion, total) 1500 UG/L Fluoride (as F-ion, total) 4000 UG/L Yttrium fluoride (CAS 13709-49-4) Fluoride (as F-ion, total) 1500 UG/L

Fluoride (as F-ion, total) 4000 UG/L

Estonia Dangerous substances in soil Data

Calcium fluoride (CAS 7789-75-5) Fluoride (as F-ion) 1200 mg/kg

Fluoride (as F-ion) 2000 mg/kg Fluoride (as F-ion) 450 mg/kg Fluoride (as F-ion) 1200 mg/kg Fluoride (as F-ion) 2000 mg/kg

Yttrium fluoride (CAS 13709-49-4)

Fluoride (as F-ion) 450 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product

residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal

Material name: Yttrium-Calcium Fluoride

methods/information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as

amended.

National regulations Follow national regulation for work with chemical agents.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

Material name: Yttrium-Calcium Fluoride SDS FU 2DQ Version #: 03 Revision date: 15-January-2018 Issue date: 21-May-2015

Information on evaluation method leading to the classification of mixture Disclaimer

The classification for health and environmental hazards is derived by a combination of calculatior methods and test data, if available.

Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.

Material name: Yttrium-Calcium Fluoride

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