# MATERION

### SAFETY DATA SHEET

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

1.1. Product identifier

Name of the substance Arsenic oxide (As2O3) powder **Identification number** 033-003-00-0 (Index number)

**Synonyms** diarseentrioxide \* Arsenous acid anhydride (arsenic(III) oxide) \* diarsenic trioxide; arsenic trioxide

**Document number Materion Code** 1BU

**Issue date** 22-February-2018

**Version number** 01

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** 

Materion Advanced Chemicals Inc. Company name

**Address** 407 N. 13th Street

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

**United States** Milwaukee

**Division** 414.212.0257 **Telephone** 

e-mail advancedmaterials@materion.com

Noreen Atkinson Contact person

1.4. Emergency telephone

number

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

The substance 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

**Health hazards** 

H300 - Fatal if swallowed. Acute toxicity, oral Category 2

Skin corrosion/irritation H314 - Causes severe skin burns Category 1B

and eye damage.

Serious eye damage/eye irritation Category 1 H318 - Causes serious eye damage.

Carcinogenicity H350 - May cause cancer. Category 1A

H350 - May cause cancer.

**Environmental hazards** 

Hazardous to the aquatic environment, acute Category 1 H400 - Very toxic to aquatic life.

aquatic hazard

Hazardous to the aquatic environment, H410 - Very toxic to aquatic life Category 1

long-term aquatic hazard with long lasting effects.

**Hazard summary** Fatal if swallowed. Causes severe skin burns and eye damage. May cause cancer. May cause

cancer. Exposure to powder or dusts may be irritating to eyes, nose and throat. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into

watercourses.

2.2. Label elements

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

**Contains:** Arsenic oxide

SDS FU 1 / 12 1BU Version #: 01 Issue date: 22-February-2018

### **Hazard pictograms**



Signal word Danger

**Hazard statements** 

H300 Fatal if swallowed. H350 May cause cancer.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H350 May cause cancer. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

### **Precautionary statements**

### **Prevention**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.
P280 Wear eye protection/face protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P321 Specific treatment (see this label).

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

**Storage** 

P405 Store locked up.

**Disposal** 

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label

information

None.

**2.3. Other hazards** None known.

### **SECTION 3: Composition/information on ingredients**

### 3.1. Substances

#### **General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes	
Arsenic oxide	100	1327-53-3 215-481-4	-	033-003-00-0		
Classification:	Acute Tox. 2;H300, Skin Corr. 1B;H314, Eye Dam. 1;H318, Carc. 1A;H350, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					

### 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).

**Composition comments** The full text for all R- and H-phrases is displayed in section 16.

### **SECTION 4: First aid measures**

**General information** 

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

#### 4.1. Description of first aid measures

**Inhalation** 

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician

if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

4.2. Most important symptoms and effects, both acute and delayed

Corrosive effects. Burning pain and severe corrosive skin damage. May cause temporary blindness and severe eye damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

### **SECTION 5: Firefighting measures**

**General fire hazards** 

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing

media

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

Unsuitable extinguishing

media

None known.

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

Wear suitable protective equipment.

Special firefighting procedures

Use water spray to cool unopened containers. Water runoff can cause environmental damage.

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

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. 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 release to the environment. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all

environmental releases.

### 6.3. Methods and material for containment and cleaning up

Absorb in vermiculite, dry sand or earth and place into containers. Collect dust using a vacuum cleaner equipped with HEPA filter.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Avoid the generation of dusts during clean-up. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

### 6.4. Reference to other sections

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 handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not get this material on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.

### 7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. 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**

Austria. TRK List, OEL Ordina Material	nce (GwV), BGBl. II, no. 184/2001 Type	Value	Form
Arsenic oxide (CAS 1327-53-3)	STEL	0,4 mg/m3	Inhalable fraction.
,	TWA	0,1 mg/m3	Inhalable fraction.
Belgium. Exposure Limit Valı Material	ues. Type	Value	
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3	
Bulgaria. OELs. Regulation N Material	o 13 on protection of workers again Type	nst risks of exposure to Value	chemical agents at work

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work					
Material	Туре	Value			
Arsenic oxide (CAS	TWA	0,05 mg/m3			
1327-53-3)					

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

Material	Туре	Value	
Arsenic oxide (CAS	MAC	0,1 mg/m3	
1327-53-3)			

### Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Material	Туре	Value	
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3	
Czech Republic. OELs. Govern	nment Decree 361	Value	

Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	Ceiling	0,4 mg/m3
,	TWA	0,1 mg/m3

Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,03 mg/m3
Finland. Workplace Exposure Limits Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3
France. Threshold Limit Values (VLEP) f Material	for Occupational Expo Type	sure to Chemicals in France, INRS ED 984 Value
Arsenic oxide (CAS 1327-53-3)	VME	0,2 mg/m3
Greece. OELs (Decree No. 90/1999, as a Material	amended) Type	Value
Arsenic oxide (CAS L327-53-3)	TWA	0,1 mg/m3
Hungary. OELs. Joint Decree on Chemic Material	al Safety of Workplac Type	es Value
Arsenic oxide (CAS 1327-53-3)	Ceiling	0,1 mg/m3
Iceland. OELs. Regulation 154/1999 on Material	occupational exposu Type	re limits Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3
Ireland. Occupational Exposure Limits Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3
Italy. Occupational Exposure Limits Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3
Latvia. OELs. Occupational exposure lin Material	nit values of chemical Type	substances in work environment Value
Arsenic oxide (CAS 1327-53-3)	STEL	0,04 mg/m3
	TWA	0,01 mg/m3
Lithuania. OELs. Limit Values for Chem Material	ical Substances, Gene Type	ral Requirements Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,03 mg/m3
Netherlands. OELs (binding) Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,0028 mg/m3
Norway. Administrative Norms for Cont Material	aminants in the Work Type	place Value
Arsenic oxide (CAS 1327-53-3)	TLV	0,01 mg/m3
Poland. MACs. Regulation regarding mawork environment, Annex 1	-	oncentrations and intensities of harmful factors in t
Material	Туре	Value
Arsenic oxide (CAS 1327-53-3)	TWA	0,01 mg/m3

Portugal. VLEs. Norm Material	on occupational e	xposur Type	e to chemical a	-	96) /alue	
Arsenic oxide (CAS 1327-53-3)		TWA		0	,01 mg/m3	
Romania. OELs. Prote Material	ection of workers f	rom ex Type	posure to chem	_	t the workplace /alue	e
Arsenic oxide (CAS 1327-53-3)		STEL		0	,1 mg/m3	
1327 33 3)		TWA		0	,01 mg/m3	
Slovakia. OELs for ca Material	rcinogens and mut	agens. Type	Regulation No.	-	carcinogenic a /alue	nd mutagenic substar Form
Arsenic oxide (CAS 1327-53-3)		TWA		C	,1 mg/m3	Inhalable fraction.
Slovenia. CMR. Protecamended)	ction of workers fr	om exp	osure to carcin	ogen and mu	tagen agents (	ULRS 101/2005, as
Material		Type		١	/alue	Form
Arsenic oxide (CAS 1327-53-3)		TWA			,1 mg/m3	Respirable particles.
Slovenia. OELs. Regu working (Official Gaz				against risks	due to exposu	re to chemicals while
Material		Туре		\	/alue	Form
Arsenic oxide (CAS 1327-53-3)		TWA		0	),1 mg/m3	Inhalable fraction.
Spain. Carcinogens a Material	nd Mutagens with	Limit V Type	alues (Table 2)	V	/alue	
Arsenic oxide (CAS 1327-53-3)		TWA		C	,01 mg/m3	
Sweden. OELs. Work Material	Environment Auth	ority ( <i>l</i> Type	AV), Occupation		.imit Values (A /alue	FS 2015:7) Form
Arsenic oxide (CAS 1327-53-3)		TWA		0	,01 mg/m3	Total dust.
Switzerland. SUVA G Material	enzwerte am Arbe	itsplat Type	Z	V	/alue	Form
Arsenic oxide (CAS 1327-53-3)		TWA		0	,1 mg/m3	Inhalable dust.
UK. EH40 Workplace Material	Exposure Limits (V	WELs) Type		V	/alue	
Arsenic oxide (CAS 1327-53-3)		TWA		0	,1 mg/m3	
logical limit values						
Croatia. BLV. Dangero Material	ous Substance Exp Value	osure	Limit Values at \ Determinant	Vorkplace, A Specimen	nnexes 4 (as a Sampling ti	
Arsenic oxide (CAS 1327-53-3)	70 μg/l		Arsenic	Urine	*	
·	0,93 umol/l		Arsenic	Urine	*	
* - For sampling details,	•					
Finland. HTP-arvot, I Material	App 2., Biological L Value	imit Va	llues, (BRA/BG\ Determinant	) , Social Aff Specimen	airs and Minist Sampling ti	
Arsenic oxide (CAS 1327-53-3)	70 nmol/l		Inorganic arsenic	Urine	*	
* - For sampling details,	please see the source	ce docu	ment.			
France. Biological ind Material	icators of exposur Value	e (IBE)	(National Insti Determinant	tute for Rese Specimen	arch and Secu Sampling ti	
Arsenic oxide (CAS 1327-53-3)	0,05 mg/g		Métabolites de l'arsenic inorganique	Creatinine ii urine	1 *	
* - For sampling details,	please see the source	ce docui				

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

Material	Value	Determinant	Specimen	Sampling time	
Arsenic oxide (CAS 1327-53-3)	0,13 mg/g	Arsenic	Creatinine in urine	*	
	0,2 μmol/mmol	Arsenic	Creatinine in urine	*	

<sup>\* -</sup> For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4 Material Value Determinant Specimen Sampling time						
Arsenic oxide (CAS 1327-53-3)	35 μg/l	Arsénico inorgánico más metabolitos metilados como As	Urine	*		

<sup>\* -</sup> For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)					
Material	Value	Determinant	Specimen	Sampling time	
Arsenic oxide (CAS 1327-53-3)	50 μg/l	Anorganisches Arsen und methylierte Metaboliten	Urine	*	

<sup>\* -</sup> 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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

General information	Wear chemical protective equipment that is specifically recommended by the manufacturer.
	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Eye wash fountain is recommended.
Eye/face protection	Wear eye/face protection. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter.

## Skin protection

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

supplie

**- Other**Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. It may provide little or no thermal protection. Wear protective gloves. Personal protection equipment

should be chosen according to the CEN standards and in discussion with the supplier of the

personal protective equipment.

Respiratory protection

Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### **Hygiene** measures

When using, do not eat, drink or smoke. Do not get this material on clothing. 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

Contain spills and prevent releases and observe national regulations on emissions. Inform appropriate managerial or supervisory personnel of all environmental releases.

Material name: Arsenic oxide (As2O3) powder

1BU Version #: 01 Issue date: 22-February-2018

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Powder. **Appearance Physical state** Solid. **Form** Powder. Colour Not available. Odour Not available. **Odour threshold** Not available. Not available. pН 274 °C (525,2 °F) Melting point/freezing point

313 °C (595,4 °F)

Initial boiling point and

boiling range

460 °C (860 °F)

Flash point Not available. **Evaporation rate** Not available. Not available. Flammability (solid, gas)

Upper/lower flammability or explosive limits Flammability limit - lower

(%)

Not available.

Flammability limit -

upper (%)

Not available.

Vapour pressure < 0,0000001 kPa at 25 °C

Vapour density Not available. **Relative density** Not available.

Solubility(ies)

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

(n-octanol/water)

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

9.2. Other information

**Density** 4,15 g/cm3 estimated

Molecular formula As2-03 Molecular weight 197,84 g/mol

Specific gravity 4,15

### **SECTION 10: Stability and reactivity**

10.1. Reactivity Not available

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 None known. Arsenic. 10.6. Hazardous

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** Dust may irritate respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes severe skin burns.

Eye contact Causes severe eye burns. Causes serious eye damage.

Ingestion Fatal if swallowed. Causes digestive tract burns.

Material name: Arsenic oxide (As2O3) powder

Burning pain and severe corrosive skin damage. Causes serious eye damage. Dusts may irritate the **Symptoms** 

respiratory tract, skin and eyes. Symptoms may include stinging, tearing, redness, swelling, and

blurred vision. Permanent eye damage including blindness could result.

### 11.1. Information on toxicological effects

**Acute toxicity** Fatal if swallowed. Causes severe skin burns and eye damage.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye

irritation

Causes severe eye burns. Causes serious eye damage.

**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 May cause cancer. May cause cancer.

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

Arsenic oxide (CAS 1327-53-3)

IARC Monographs. Overall Evaluation of Carcinogenicity

Arsenic oxide (CAS 1327-53-3) 1 Carcinogenic to humans.

Slovenia. CMR. Protection of workers from exposure to carcinogen and mutagen agents (ULRS 101/2005, as amended)

Arsenic oxide (CAS 1327-53-3) Carcinogenic, Category 1A

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Arsenic oxide (CAS 1327-53-3) Carcinogenic, Category 1A

Carcinogenic, Category 1B.

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

- single exposure

Specific target organ toxicity

- repeated exposure

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

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

Mixture versus substance

information

No information available.

Other information Not available.

### **SECTION 12: Ecological information**

12.1. Toxicity Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

**Test results Product** Species

Arsenic oxide (CAS 1327-53-3)

**Aquatic** 

EC50 Crustacea Snail (Potamopyrgus antipodarum) 34,6 mg/l, 48 hours Fish LC50 Snake-head catfish (Channa punctata) 9,9 - 12,8 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

12.2. Persistence and

degradability

No data is available on the degradability of this product.

12.3. Bioaccumulative

potential

No data available.

**Partition coefficient** 

Not available.

n-octanol/water (log Kow)

**Bioconcentration factor (BCF)** Not available. 12.4. Mobility in soil No data available. 12.5. Results of PBT Not available.

and vPvB 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.

### **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).

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

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

**methods/information** its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used

sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

### **SECTION 14: Transport information**

### **ADR**

**14.1. UN number** UN1561

**14.2. UN proper shipping** ARSENIC TRIOXIDE

name

14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk Label(s) 6.1
Hazard No. (ADR) 60
Tunnel restriction D/E

code

**14.4. Packing group** II **14.5. Environmental** No.

hazards

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

**RID** 

**14.1. UN number** UN1561

**14.2. UN proper shipping** ARSENIC TRIOXIDE

name

14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk Label(s) 6.1

14.4. Packing group II

14.5. Environmental No.

hazards

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

**ADN** 

**14.1. UN number** UN1561

**14.2. UN proper shipping** ARSENIC TRIOXIDE

name

14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk Label(s) 6.1

14.4. Packing group II

14.5. Environmental No.

hazards

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

**IATA** 

**14.1. UN number** UN1561 **14.2. UN proper shipping** Arsenic trioxide

name

Material name: Arsenic oxide (As2O3) powder

### 14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk 14.4. Packing group II
14.5. Environmental No.

hazards

ERG Code 6L

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

Other information

**Passenger and cargo** Allowed with restrictions.

aircraft

**Cargo aircraft only** Allowed with restrictions.

**IMDG** 

**14.1. UN number** UN1561

**14.2. UN proper shipping** ARSENIC TRIOXIDE

name

14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk 14.4. Packing group II
14.5. Environmental hazards
Marine pollutant No.
EmS F-A, S-A

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

### ADN; ADR; IATA; IMDG; RID



### **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 Not listed.

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

Not listed.

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

Arsenic oxide (CAS 1327-53-3)

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

Not listed

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

Arsenic oxide (CAS 1327-53-3)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Arsenic oxide (CAS 1327-53-3)

### **Authorisations**

### Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Arsenic oxide (CAS 1327-53-3)

#### **Restrictions on use**

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

Arsenic oxide (CAS 1327-53-3)

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

Arsenic oxide (CAS 1327-53-3)

### Other EU regulations

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

Arsenic oxide (CAS 1327-53-3)

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. Pregnant

women should not work with the product, if there is the least risk of exposure.

**National regulations** 

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. 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
Information on evaluation

method leading to the classification of mixture

Not available. Not applicable.

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