SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	NARCON MZA CASTABLE
Registration number	-
Synonyms	None.
Brand Code	9811
Issue date	04-May-2022
Version number	01

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

Identified uses	For Industrial or Professional Use Only
Uses advised against	Avoid dry cutting, blasting, or dust generation.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	HarbisonWalker International	
Address	1305 Cherrington Parkway, Suite 100 Moon Township, PA 15108, USA United States	
Division		
Telephone	General Phone: CHEMTREC EMERGENCY US/CAN ONLY	412-375-6743 1-800-424-9300
e-mail	sds@thinkHWI.com	
Contact person	HWI USA	

1.4. Emergency telephone number	General Phone:	412-375-6600

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 classificatior 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.
Response	Wash hands after handling.
Storage	
P402 + P404	Store in a dry place. Store in a closed container.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Supplemental label information	None.
2.3. Other hazards	Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Mullite	30 - 50	1302-93-8 215-113-2	-	-	
Classification: -					
Cement, Alumina, Chemicals	2,5 - 10	65997-16-2 266-045-5	-	-	
Classification: -					
Other components below reportable levels	50 - 70				

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information Not available.

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 symptoms and effects, both acute and delayed Exposure may cause temporary irritation, redness, or discomfort.

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

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media Not available.

5.2. Special hazards arising from the substance or mixture Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters Not available.

Special fire fighting procedures Not available.

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 containment and cleaning up Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

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 Avoid prolonged exposure. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store in 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

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	MAK	5 mg/m3	Respirable fume.
		5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
	STEL	20 mg/m3	Inhalable fraction.
		10 mg/m3	Respirable fume.
		10 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	MAK	0,3 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	MAK	5 mg/m3	Inhalable fraction.
Zirconium dioxide (CAS 1314-23-4)	MAK	5 mg/m3	Inhalable fraction.

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

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

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	3,5 mg/m3	Respirable fraction.
		10 mg/m3	Dust.
		1,5 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	TWA	10 mg/m3	Inhalable fraction.
		0,07 mg/m3	Respirable fraction.
Mullite (CAS 1302-93-8)	TWA	2 mg/m3	

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

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	MAC	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Fumes, Silica (CAS 69012-64-2)	MAC	6 mg/m3	Total dust.

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

Components	Type	Value	Form
		0,1 mg/m3	Respirable dust.
Zircon (CAS 14940-68-2)	MAC	5 mg/m3	
	STEL	10 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	MAC	5 mg/m3	
	STEL	10 mg/m3	

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

Components	Type	Value
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3
Zircon (CAS 14940-68-2)	TWA	5 mg/m3
Zirconium dioxide (CAS 1314-23-4)	TWA	5 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	0,1 mg/m3	Respirable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	4 mg/m3	Dust.

Denmark. Exposure Limit Values

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TLV	5 mg/m3	Total
		2 mg/m3	Respirable.
Fumes, Silica (CAS 69012-64-2)	TLV	2 mg/m3	Respirable.
Zircon (CAS 14940-68-2)	TLV	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	TLV	5 mg/m3	

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

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Fine dust, respiratory fraction
		10 mg/m3	Total dust.
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3	Fine dust, respiratory fraction
Mullite (CAS 1302-93-8)	TWA	2 mg/m3	

Finland. Workplace Exposure Limits

Components	Type	Value
Fumes, Silica (CAS 69012-64-2)	TWA	5 mg/m3
Mullite (CAS 1302-93-8)	TWA	2 mg/m3
Zircon (CAS 14940-68-2)	TWA	1 mg/m3
Zirconium dioxide (CAS 1314-23-4)	TWA	1 mg/m3

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	VME	10 mg/m3

Regulatory status: Indicative limit (VL)

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Inhalable dust.
		1,5 mg/m3	Respirable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	Respirable fraction.
Zirconium dioxide (CAS 1314-23-4)	TWA	0,3 mg/m3	Respirable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	AGW	0,3 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	AGW	1 mg/m3	Inhalable fraction.
Zirconium dioxide (CAS 1314-23-4)	AGW	1 mg/m3	Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Inhalable
		10 mg/m3	Respirable.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	6 mg/m3	Respirable.
Zircon (CAS 14940-68-2)	STEL	20 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	20 mg/m3	
	TWA	5 mg/m3	

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3	Respirable mist.
Mullite (CAS 1302-93-8)	TWA	2 mg/m3	

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Zircon (CAS 14940-68-2)	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	TWA	5 mg/m3	

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	6 mg/m3	Total inhalable dust.
		2,4 mg/m3	Respirable dust.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Italy. Occupational Exposure Limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	6 mg/m3	Decomposition aerosol.
		4 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TWA	1 mg/m3	

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Inhalable fraction.
		2 mg/m3	Respirable fraction.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	
Zircon (CAS 14940-68-2)	TWA	6 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	TWA	6 mg/m3	

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TLV	10 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TLV	1,5 mg/m3	Respirable dust.
Zircon (CAS 14940-68-2)	TLV	5 mg/m3	

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Zirconium dioxide (CAS 1314-23-4)	TLV	5 mg/m3	

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	2,5 mg/m3	Inhalable fraction.
		1,2 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	STEL	5 mg/m3	Aerosol
	TWA	2 mg/m3	Aerosol
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Inhalable fraction.
		1,5 mg/m3	Respirable fraction.
		0,1 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	
Zircon (CAS 14940-68-2)	TWA	1 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	TWA	1 mg/m3	

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

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3	Inhalable fraction.

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

Components	Type	Value	Form
		1,25 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	Respirable fraction.
Zircon (CAS 14940-68-2)	TWA	1 mg/m3	Inhalable fraction.
Zirconium dioxide (CAS 1314-23-4)	TWA	1 mg/m3	Inhalable fraction.

Spain. Occupational Exposure Limits

Components	Type	Value
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3
Zircon (CAS 14940-68-2)	STEL	10 mg/m3
	TWA	5 mg/m3
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3
	TWA	5 mg/m3

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Total dust.
		2 mg/m3	Respirable dust.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	Total dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	STEL	24 mg/m3	Respirable dust and/or fume.
	TWA	3 mg/m3	Respirable dust and/or fume.
		3 mg/m3	Respirable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	Respirable fume.
Zircon (CAS 14940-68-2)	TWA	5 mg/m3	Inhalable fraction.
Zirconium dioxide (CAS 1314-23-4)	TWA	5 mg/m3	Inhalable fraction.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	6 mg/m3	Inhalable dust.
		2,4 mg/m3	Respirable dust.
Zircon (CAS 14940-68-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Biological limit values

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling Time
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	60 µg/g	Aluminium	Creatinine in 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.

Exposure guidelines Zirconium silicates (zircon sands) contain trace amounts (106-120 pCi/g) of naturally occurring radioactive uranium and thorium. Overexposure by inhalation to respirable dust containing uranium and thorium may cause lung cancer. Eye contact with the dust may cause eye irritation. Measurements made by Dupont during the use of a similar mineral sand indicated the observance of the 5 mg/m3 OSHA PEL for respirable dust and/or the PEL for quartz ensures the user is below the exposure limits established for uranium and thorium. No LD50 or LC50 can be found for zircon sand.
The resin binder in this product was specifically engineered to have low toxicity, with minima free-phenol (less than 100ppm in this refractory product) and no free-formaldehyde. Under certain conditions, thermal decomposition products may still include carbon monoxide, carbon dioxide, formaldehyde, phenol and aromatic and/or aliphatic compounds.

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.

- Other Wear suitable protective clothing.

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

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 state Solid.

Form Solid.

Colour Not available.

Odour Not available.

Odour threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

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 reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials. Refractories containing crystalline silica may, after service, contain more or less crystalline silica. Care must be taken to avoid and/or control dust from demolition. If in doubt of the proper protection, seek advice from a safety professional. The organic binder in this product falls into a class known as phenolic resin. Refractory products using this type of binder are supplied in two forms, (1) shaped products such as brick and (2) monolithics/specialties such as refractory plastics and rams. The hazards associated with phenolic resin are different in the two forms. For pre-cured shapes (brick), the binder has been reacted or polymerized by heat to its solid form prior to shipment. On decomposition by heating, where there is sufficient air and heating rate, the gaseous products are mostly carbon dioxide and water. Under low or limited oxygen supply, decomposition products during heat-up and early service may include phenol, as well as aromatic and/or aliphatic derivatives. After a campaign in service, this refractory product should be completely coked and in that condition the material for disposal would be carbon and an inorganic oxide. During field installation of non-cured unshaped products (monolithics), there is a possibility of exposure to trace amounts of phenol by skin contact and inhalation. After the product has been heated to high temperatures in service, it will have similar decomposition characteristics to pre-cured shapes.
10.5. Incompatible materials	Acids. Chlorine. Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

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

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

Not listed.

Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	Based on available data, the classification criteria are not met for hazardous to the aquatic environment.
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
12.3. Bioaccumulative potential	
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 assessment	Not a PBT or vPvB substance or mixture. Not available.
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	Not available.
Contaminated packaging	Not available.
EU waste code	Not available.

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.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

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

Not listed.

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

Not listed.

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 Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
National regulations	Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any H-statements not written out in full under Sections 2 to 15	None.

Revision information	Product and Company Identification: Product and Company Identification Composition / Information on Ingredients: Component Summary GHS: Classification
Training information	Not available.
Disclaimer	This information is based on our present knowledge on creation date. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.