



SAFETY DATA SHEET

MATERION

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

1.1. Product identifier

Trade name or designation of the mixture Boron nitride aerosol spray SP-108
Registration number -
Document number 1EF
Synonyms None.
Materion Code 1EF
Issue date 09-June-2015
Revision date 27-March-2019
Supersedes date 26-March-2019
Version number 05

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
Division Milwaukee
Telephone 414.212.0257
e-mail advancedmaterials@materion.com
Contact person Noreen Atkinson

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards

Aerosols Category 2 H223 - Flammable aerosol.

Health hazards

Serious eye damage/eye irritation Category 2
Germ cell mutagenicity Category 1B
Carcinogenicity Category 1A
Specific target organ toxicity - single exposure Category 3 narcotic effects

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard Category 2

Hazard summary Causes serious eye irritation. Toxic if inhaled.

2.2. Label elements

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

Contains: Acetone, RM N-butane

Hazard pictograms



Signal word Danger

Hazard statements

H223 Flammable aerosol.
H331 Toxic if inhaled.

Precautionary statements

Prevention

P211 Do not spray on an open flame or other ignition source.
P261 Avoid breathing dust/fume/gas/vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

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

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Acetone	30 - 35	67-64-1 200-662-2	-	606-001-00-8	#
Classification:	Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336				
RM Ethanol; Ethyl Alcohol	20 - 23	64-17-5 200-578-6	-	603-002-00-5	
Classification:	Flam. Liq. 2;H225, Eye Irrit. 2;H319, Aquatic Chronic 2;H411				
RM N-butane	10 - 12	106-97-8 203-448-7	-	601-004-01-8	
Classification:	Flam. Gas 1;H220, Muta. 1B;H340, Carc. 1A;H350				
RM Xylene	1 - 2	1330-20-7 215-535-7	-	601-022-00-9	#
Classification:	Flam. Liq. 3;H226, Acute Tox. 4;H312, Skin Irrit. 2;H315, Acute Tox. 4;H332, Aquatic Chronic 2;H411				
Other components below reportable levels	28 - 33				

Composition comments

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

SECTION 4: First aid measures

General information

If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

Inhalation

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

Skin contact

Not available.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth. In the unlikely event of swallowing contact a physician or poison control centre.

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

Severe eye irritation. May cause drowsiness and dizziness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

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

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards	Flammable aerosol.
5.1. Extinguishing media	
Suitable extinguishing media	Powder. Alcohol resistant foam. Carbon dioxide (CO ₂).
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	Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up.
For emergency responders	Keep unnecessary personnel away.
6.2. Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases.
6.3. Methods and material for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent product from entering drains.
6.4. Reference to other sections	Not available.

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. Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing mist or vapour. Avoid contact with eyes. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.
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
Acetone (CAS 67-64-1)	MAK	1200 mg/m ³ 500 ppm
	STEL	4800 mg/m ³ 2000 ppm
	Ceiling	3800 mg/m ³
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	MAK	2000 ppm 1900 mg/m ³ 1000 ppm
	Ceiling	3800 mg/m ³
RM N-butane (CAS 106-97-8)	Ceiling	3800 mg/m ³

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

Components	Type	Value
		1600 ppm
	MAK	1900 mg/m ³
		800 ppm
RM Propane (CAS 74-98-6)	Ceiling	3600 mg/m ³
		2000 ppm
	MAK	1800 mg/m ³
		1000 ppm
RM Xylene (CAS 1330-20-7)	MAK	221 mg/m ³
		50 ppm
	STEL	442 mg/m ³
		100 ppm

Belgium. Exposure Limit Values

Components	Type	Value
RM N-butane (CAS 106-97-8)	TWA	1000 ppm
RM Propane (CAS 74-98-6)	TWA	1000 ppm

Belgium. Exposure Limit Values.

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m ³
		1000 ppm
	TWA	1210 mg/m ³
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1907 mg/m ³
		1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m ³
		100 ppm
	TWA	221 mg/m ³
		50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1400 mg/m ³
	TWA	600 mg/m ³
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1000 mg/m ³
RM N-butane (CAS 106-97-8)	TWA	1800 mg/m ³
RM Propane (CAS 74-98-6)	TWA	1800 mg/m ³
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m ³
		100 ppm
	TWA	221 mg/m ³
		50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	MAC	1210 mg/m ³
		500 ppm
	STEL	3620 mg/m ³
		1500 ppm

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

Components	Type	Value
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	MAC	1900 mg/m ³
		1000 ppm
RM N-butane (CAS 106-97-8)	MAC	1450 mg/m ³
		10 ppm
RM Xylene (CAS 1330-20-7)	STEL	1810 mg/m ³
		750 ppm
	MAC	221 mg/m ³
		50 ppm
	STEL	442 mg/m ³
		100 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
Acetone (CAS 67-64-1)	Ceiling	1500 mg/m ³
	TWA	800 mg/m ³
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	Ceiling	3000 mg/m ³
	TWA	1000 mg/m ³
RM Xylene (CAS 1330-20-7)	Ceiling	400 mg/m ³
	TWA	200 mg/m ³

Denmark. Exposure Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	TLV	600 mg/m ³
		250 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TLV	1900 mg/m ³
		1000 ppm
RM N-butane (CAS 106-97-8)	TLV	1200 mg/m ³
		500 ppm
RM Propane (CAS 74-98-6)	TLV	1800 mg/m ³
		1000 ppm
RM Xylene (CAS 1330-20-7)	TLV	109 mg/m ³
		25 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1900 mg/m ³
		1000 ppm
	TWA	1000 mg/m ³
RM N-butane (CAS 106-97-8)		500 ppm
	TWA	1500 mg/m ³
RM Propane (CAS 74-98-6)		800 ppm
	TWA	1800 mg/m ³
		1000 ppm

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

Components	Type	Value
RM Xylene (CAS 1330-20-7)	STEL	450 mg/m ³ 100 ppm
	TWA	200 mg/m ³ 50 ppm

Finland. Workplace Exposure Limits Components

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1500 mg/m ³ 630 ppm
	TWA	1200 mg/m ³ 500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	2500 mg/m ³ 1300 ppm
	TWA	1900 mg/m ³ 1000 ppm
RM N-butane (CAS 106-97-8)	STEL	2400 mg/m ³ 1000 ppm
	TWA	1900 mg/m ³ 800 ppm
RM Propane (CAS 74-98-6)	STEL	2000 mg/m ³ 1100 ppm
	TWA	1500 mg/m ³ 800 ppm
RM Xylene (CAS 1330-20-7)	STEL	440 mg/m ³ 100 ppm
	TWA	220 mg/m ³ 50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	VLE	2420 mg/m ³
	Regulatory status: Regulatory binding (VRC)	1000 ppm
	Regulatory status: Regulatory binding (VRC)	VME
	Regulatory status: Regulatory binding (VRC)	1210 mg/m ³
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	VLE	500 ppm
	Regulatory status: Indicative limit (VL)	5000 ppm
	Regulatory status: Indicative limit (VL)	VME
	Regulatory status: Indicative limit (VL)	1900 mg/m ³
RM N-butane (CAS 106-97-8)	VLE	1000 ppm
	Regulatory status: Indicative limit (VL)	1900 mg/m ³
	Regulatory status: Indicative limit (VL)	VME
	Regulatory status: Indicative limit (VL)	1900 mg/m ³

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

Components	Type	Value
		800 ppm
Regulatory status: Indicative limit (VL)		
RM Xylene (CAS 1330-20-7)	VLE	442 mg/m3
Regulatory status: Regulatory binding (VRC)		
		100 ppm
Regulatory status: Regulatory binding (VRC)		
	VME	221 mg/m3
Regulatory status: Regulatory binding (VRC)		
		50 ppm
Regulatory status: Regulatory binding (VRC)		

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1200 mg/m3
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	380 mg/m3
		200 ppm
RM N-butane (CAS 106-97-8)	TWA	2400 mg/m3
		1000 ppm
RM Propane (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm
RM Xylene (CAS 1330-20-7)	TWA	440 mg/m3
		100 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	AGW	1200 mg/m3
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	AGW	960 mg/m3
		500 ppm
RM N-butane (CAS 106-97-8)	AGW	2400 mg/m3
		1000 ppm
RM Propane (CAS 74-98-6)	AGW	1800 mg/m3
		1000 ppm
RM Xylene (CAS 1330-20-7)	AGW	440 mg/m3
		100 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	3560 mg/m3
	TWA	1780 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
RM N-butane (CAS 106-97-8)	TWA	2350 mg/m3
		1000 ppm
RM Propane (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm

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

Components	Type	Value
RM Xylene (CAS 1330-20-7)	STEL	650 mg/m3
		150 ppm
	TWA	435 mg/m3
		100 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m3
	TWA	1210 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	7600 mg/m3
	TWA	1900 mg/m3
RM N-butane (CAS 106-97-8)	STEL	9400 mg/m3
	TWA	2350 mg/m3
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	221 mg/m3

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	600 mg/m3
		250 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
RM N-butane (CAS 106-97-8)	TWA	1200 mg/m3
		500 ppm
RM Propane (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	109 mg/m3
		25 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1000 ppm
RM N-butane (CAS 106-97-8)	TWA	1000 ppm
RM Propane (CAS 74-98-6)	TWA	1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3
		50 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1000 ppm

Italy. Occupational Exposure Limits Components

Components	Type	Value
RM N-butane (CAS 106-97-8)	STEL	1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
RM Boron nitride (CAS 10043-11-5)	TWA	6 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1000 mg/m3
RM N-butane (CAS 106-97-8)	STEL	300 mg/m3
	TWA	300 mg/m3
RM Propane (CAS 74-98-6)	STEL	300 mg/m3
	TWA	1800 mg/m3 1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m3 1000 ppm
	TWA	1210 mg/m3 500 ppm
RM Boron nitride (CAS 10043-11-5)	TWA	6 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1900 mg/m3
	TWA	1000 ppm 1000 mg/m3 500 ppm
RM Xylene (CAS 1330-20-7)	STEL	450 mg/m3 100 ppm
	TWA	200 mg/m3 50 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A Components

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3
		50 ppm

Netherlands. OELs (binding)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2420 mg/m3
	TWA	1210 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1900 mg/m3
	TWA	260 mg/m3
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	210 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Acetone (CAS 67-64-1)	TLV	295 mg/m3
		125 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TLV	950 mg/m3
		500 ppm
RM N-butane (CAS 106-97-8)	TLV	600 mg/m3
		250 ppm
RM Propane (CAS 74-98-6)	TLV	900 mg/m3
		500 ppm
RM Xylene (CAS 1330-20-7)	TLV	108 mg/m3
		25 ppm

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
Acetone (CAS 67-64-1)	STEL	1800 mg/m3
	TWA	600 mg/m3
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3
RM N-butane (CAS 106-97-8)	STEL	3000 mg/m3
	TWA	1900 mg/m3
RM Propane (CAS 74-98-6)	TWA	1800 mg/m3
RM Xylene (CAS 1330-20-7)	TWA	100 mg/m3

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3
		50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1000 ppm
RM N-butane (CAS 106-97-8)	STEL	1000 ppm
	TWA	1000 ppm
RM Propane (CAS 74-98-6)	TWA	2500 ppm
RM Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
	STEL	9500 mg/m3 5000 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
	STEL	1500 mg/m3
RM N-butane (CAS 106-97-8)	TWA	1200 mg/m3
	STEL	1800 mg/m3 1000 ppm
RM Propane (CAS 74-98-6)	TWA	1400 mg/m3 778 ppm
	STEL	442 mg/m3 100 ppm
RM Xylene (CAS 1330-20-7)	TWA	221 mg/m3 50 ppm

Slovakia. OELs for carcinogens and mutagens. Regulation No. 46/2002 on carcinogenic and mutagenic substances

Components	Type	Value
RM N-butane (CAS 106-97-8)	TWA	2400 mg/m3 1000 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
	STEL	1920 mg/m3 1000 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	960 mg/m3 500 ppm
	STEL	442 mg/m3 100 ppm
RM Xylene (CAS 1330-20-7)	TWA	221 mg/m3 50 ppm

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
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m ³ 1000 ppm
RM N-butane (CAS 106-97-8)	TWA	2400 mg/m ³ 1000 ppm
RM Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm
RM Xylene (CAS 1330-20-7)	TWA	221 mg/m ³ 50 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m ³ 500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1910 mg/m ³ 1000 ppm
RM N-butane (CAS 106-97-8)	TWA	1000 ppm
RM Propane (CAS 74-98-6)	TWA	1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm
	TWA	221 mg/m ³ 50 ppm

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

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1200 mg/m ³ 500 ppm
	TWA	600 mg/m ³ 250 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1900 mg/m ³ 1000 ppm
	TWA	1000 mg/m ³ 500 ppm
RM Xylene (CAS 1330-20-7)	Ceiling	442 mg/m ³ 100 ppm
	TWA	221 mg/m ³ 50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2400 mg/m ³ 1000 ppm
	TWA	1200 mg/m ³ 500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	STEL	1920 mg/m ³ 1000 ppm

**Switzerland. SUVA Grenzwerte am Arbeitsplatz
Components**

Components	Type	Value
	TWA	960 mg/m3 500 ppm
RM N-butane (CAS 106-97-8)	STEL	7600 mg/m3
	TWA	3200 ppm 1900 mg/m3 800 ppm
RM Propane (CAS 74-98-6)	STEL	7200 mg/m3 4000 ppm
	TWA	1800 mg/m3 1000 ppm
RM Xylene (CAS 1330-20-7)	STEL	870 mg/m3 200 ppm
	TWA	435 mg/m3 100 ppm

**UK. EH40 Workplace Exposure Limits (WELs)
Components**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	3620 mg/m3 1500 ppm
	TWA	1210 mg/m3 500 ppm
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	TWA	1920 mg/m3 1000 ppm
RM N-butane (CAS 106-97-8)	STEL	1810 mg/m3 750 ppm
	TWA	1450 mg/m3 600 ppm
RM Xylene (CAS 1330-20-7)	STEL	441 mg/m3 100 ppm
	TWA	220 mg/m3 50 ppm

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU
Components**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
RM Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

Biological limit values

**Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)
Components**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	20 mg/g	Acetone	Creatinine in urine	*
	20 mg/l	Acetone	Blood	*
	0,34 mmol/l	Acetone	Blood	*
	38,95 mmol/mol	Acetone	Creatinine in urine	*

Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)

Components	Value	Determinant	Specimen	Sampling Time
RM Xylene (CAS 1330-20-7)	1,5 g/g	Methylhippuric acids	Creatinine in blood	*
	1,5 mg/l	Xylene	Blood	*
	0,88 mol/mol	Methylhippuric acids	Creatinine in blood	*
	14,13 umol/l	Xylene	Blood	*

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

Czech Republic. Limit Values for Indicators 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
RM Xylene (CAS 1330-20-7)	820 µmol/mmol	Methylhippuric acids	Creatinine in urine	*
	1400 mg/g	Methylhippuric acids	Creatinine in urine	*

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

Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV) , Social Affairs and Ministry of Health

Components	Value	Determinant	Specimen	Sampling Time
RM Xylene (CAS 1330-20-7)	5 mmol/l	Methylhippuric acids	Urine	*

* - 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
Acetone (CAS 67-64-1)	100 mg/l	Acétone	Urine	*
RM Xylene (CAS 1330-20-7)	1500 mg/g	Acides méthylhippuriques	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
Acetone (CAS 67-64-1)	80 mg/l	Aceton	Urine	*
RM Xylene (CAS 1330-20-7)	2000 mg/l	Methylhippur-(Tolur-) säure (alle Isomere)	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
RM Xylene (CAS 1330-20-7)	1500 mg/g	methyl hippuric acids	Creatinine in urine	*
	860 µmol/mmol	methyl hippuric acids	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

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	53,36 mg/g	Acetone	Creatinine in urine	*
	80 mg/l	Acetone	Urine	*
RM Xylene (CAS 1330-20-7)	1334 mg/g	Methylhippuric acids	Creatinine in urine	*
	2000 mg/l	Methylhippuric acids	Urine	*
	1,5 mg/l	Xylene	Blood	*

* - 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
Acetone (CAS 67-64-1)	50 mg/l	Acetona	Urine	*
RM Xylene (CAS 1330-20-7)	1 g/g	Ácidos metilhipúricos	Creatinine in urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	80 mg/l	Aceton	Urine	*
RM Xylene (CAS 1330-20-7)	2 g/l	Methyl-Hippursäure	Urine	*

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

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling Time
RM Xylene (CAS 1330-20-7)	650 mmol/mol	Methyl hippuric acid	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**EU Exposure Limit Values: Skin designation**

RM Xylene (CAS 1330-20-7) Can be absorbed through the skin.

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

RM Xylene (CAS 1330-20-7) Can be absorbed through the skin.

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. 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 Chemical respirator with organic vapour cartridge and full facepiece.

Skin protection

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

- Other Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. 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 Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state Liquid.

Form Aerosol

Colour	Not available.
Odour	Not available.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	-187,6 °C (-305,68 °F) estimated
Initial boiling point and boiling range	-42,1 °C (-43,78 °F) estimated
Flash point	-104,4 °C (-156,0 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1,9 % estimated
Flammability limit - upper (%)	12,8 % estimated
Vapour pressure	1608,79 hPa estimated
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	287,78 °C (550 °F) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Density	0,74 g/cm ³ estimated
Heat of combustion (NFPA 30B)	26,84 kJ/g estimated
Percent volatile	60 % estimated
Specific gravity	0,74 estimated
VOC	61,5 % estimated

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Not available.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong acids. Acids. Strong oxidising agents. Nitrates. Halogens. Fluorine. Chlorine.
10.6. Hazardous decomposition products	No dangerous reaction known under conditions of normal use.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

11.1. Information on toxicological effects

Material name: Boron nitride aerosol spray SP-108

1EF Version #: 05 Revision date: 27-March-2019 Issue date: 09-June-2015

Acute toxicity	Narcotic effects.	
Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20000 mg/kg
Inhalation		
LC50	Rat	50,1 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)		
Acute		
Inhalation		
LC50	Mouse	39 mg/l, 4 Hours
Oral		
LD50	Rat	6,2 g/kg
RM Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	3523 - 8600 mg/kg

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

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

Serious eye damage/eye irritation Causes serious eye 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 May cause genetic defects.

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

RM N-butane (CAS 106-97-8) Mutagenic, Category 1B.

Carcinogenicity May cause cancer.

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

RM N-butane (CAS 106-97-8)

IARC Monographs. Overall Evaluation of Carcinogenicity

RM Xylene (CAS 1330-20-7)

3 Not classifiable as to carcinogenicity to humans.

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

RM N-butane (CAS 106-97-8) Carcinogenic, Category 1A

Reproductive toxicity Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

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 Harmful to aquatic life with long lasting effects.

Product	Species		Test Results
Boron nitride aerosol spray SP-108			
Aquatic			
Crustacea	EC50	Daphnia	17773,6973 mg/l, 48 hours estimated
Fish	LC50	Fish	2007,5259 mg/l, 96 hours estimated
Components	Species		Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
RM Ethanol; Ethyl Alcohol (CAS 64-17-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7,7 - 11,2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
RM Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7,711 - 9,591 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

Partition coefficient n-octanol/water (log Kow)

Acetone	-0,24
RM Ethanol; Ethyl Alcohol	-0,31
RM N-butane	2,89
RM Xylene	3,12 - 3,2

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.

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.

Substance Global Warming Potential per (Annex IV), Regulation 517/2014/EU on fluorinated greenhouse gases, as amended

RM N-butane (CAS 106-97-8)	4
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12.7. Additional information

Estonia Dangerous substances in groundwater Data

RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	Pesticides (total) 0,5 ug/l
	Pesticides (total) 5 ug/l
RM Xylene (CAS 1330-20-7)	Pesticides (total) 0,5 ug/l
	Pesticides (total) 5 ug/l

Estonia Dangerous substances in soil Data

RM Ethanol; Ethyl Alcohol (CAS 64-17-5)	Synthetic pesticides (total of active substances) 0,5 mg/kg
	Synthetic pesticides (total of active substances) 20 mg/kg
	Synthetic pesticides (total of active substances) 5 mg/kg
RM Xylene (CAS 1330-20-7)	Synthetic pesticides (total of active substances) 0,5 mg/kg
	Synthetic pesticides (total of active substances) 20 mg/kg
	Synthetic pesticides (total of active substances) 5 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).

Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Do not incinerate. Make sure containers are empty before discarding (explosion risk). Empty cans completely and then puncture it with approved device made for this purpose. The aerosol canister may then be disposed of in normal trash removal. Dispose in accordance with all applicable regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1011
14.2. UN proper shipping name	BUTANE
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Hazard No. (ADR)	23
Tunnel restriction code	B/D
14.4. Packing group	Not available.
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Not available.

RID

14.1. UN number	UN1011
14.2. UN proper shipping name	BUTANE
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1 (+13)
14.4. Packing group	Not available.
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Not available.

ADN

14.1. UN number	UN1011
14.2. UN proper shipping name	BUTANE
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
14.4. Packing group	Not available.
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Not available.

IATA

14.1. UN number	UN1011
14.2. UN proper shipping name	Butane
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	Yes
ERG Code	10L
14.6. Special precautions for user	Not available.

Other information

Passenger and cargo aircraft	Forbidden
Cargo aircraft only	Allowed with restrictions.

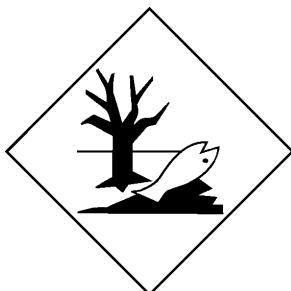
IMDG

14.1. UN number	UN1011
14.2. UN proper shipping name	BUTANE, MARINE POLLUTANT
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-D, S-U
14.6. Special precautions for user	Not available.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



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

RM Xylene (CAS 1330-20-7)

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

Acetone (CAS 67-64-1)

RM Ethanol; Ethyl Alcohol (CAS 64-17-5)

RM N-butane (CAS 106-97-8)

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

RM N-butane (CAS 106-97-8)

Other EU regulations

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

Acetone (CAS 67-64-1)

RM Ethanol; Ethyl Alcohol (CAS 64-17-5)

RM N-butane (CAS 106-97-8)

RM Xylene (CAS 1330-20-7)

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. Pregnant women should not work with the product, if there is the least risk of exposure. 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. 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, as amended.

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

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

Training information

Follow training instructions when handling this material.

Disclaimer

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