Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

 Date:
 October 5th, 2022

 Version:
 4.0
 Page 1 of 10

Section 1: Identification of the substance or mixture and the company

1.1. Product Identifier

EM-Tec conductive double-sided carbon taps with release liner on PET film The substances do not require registration according to regulation (EC) N. 1907/2006 (REACH).

1.2 Relevant applications of the material and uses advised against

Conductive adhesive tabs for sample holding in microscopy and surface analysis applications

1.3. Company details

Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873 Telephone: 1-732-898-3828 Email: info@ravescientific.com Web: www.ravescientific.com

1.4 Emergency telephone number

Rave Scientific: 1-732-898-3828

Section 2: Hazards identification

2.1. Classification of the substance or mixture according to Regulation EC Nr. 1272/2008

This substance does not meet the criteria for classification in accordance with regulation Nr. 1272/2008/EC

2.2 Labeling elements

Labelling accordance to Regulation EC. Nr 1272/2008

Not needed

(Contd. on page 2)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

Date: October 5th, 2022 Version: 4.0 Page 2 of 10

(Contd. of page 1)

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, the substance is not a PBT or a vPvB

Section 3: Composition / information on components

3.1. Substances

Double sided conductive adhesive tabs with black adhesive layers filled with carbon black. White release liner on one side, siliconised PET film on the other side. Not considered hazardous under normal usage and room temperature. Can release irritating and or toxic vapours at elevated temperatures > 60°C.

3.2 Mixtures

25-35 WT% acrylic adhesive	CAS #: not known	EC #: Not known
<10 WT% carbon black mixed in adhesive	CAS #: 1333-86-4	EC #: 215-609-9
25-35 WT% siliconised white release liner	CAS #: not known	EC #: Not known
15-25 WT% aluminium foil	CAS #: 7429-90-5	EC #: 231-072-3
20-35 WT% siliconized clear PET film	CAS #: 25038-59	EC #: Not known

Section 4: First aid measures

4.1. Description of first aid measures

Contact with eyes:	Rinse cautiously with water for several minutes. If possible, remove contact
	lenses. Continue rinsing.
Contact with skin:	No special measures necessary.
Inhalation:	No special measures necessary. There is no major dust generation possible.
Ingestion:	Rinse mouth. Seek medical assistance if you feel unwell

4.2. Important symptoms and effects, either immediate or delayed

No relevant information available

(Contd. on page 3)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

 Date:
 October 5th, 2022

 Version:
 4.0
 Page 3 of 10

(Contd. of page 2)

4.3. Indication of any immediate medical attention and special treatment

General advice: If you feel unwell, seek medical advice; show product label if possible If symptoms persist, always call a doctor

Section 5: Firefighting Measures

5.1. Extinguishing media

Water, foam, dry extinguishing powder, ABC powder. Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Toxic acrylic fumes

5.3 Advice to firefighters

Fight fire from a safe distance, with adequate cover. Do not move the load if exposed to heat. In case of fire: do not breathe fumes. Wear self-contained breathing apparatus for fire fighting

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No special measures are necessary.

6.2 Environmental precautions

Do not allow to enter public sewers and waterways

6.3 Methods and material for containment and clean up

Pick up mechanically

6.4 Reference to other sections

For further information see section 7, 8 and 13.

(Contd. on page 4)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

(Contd. of page 3)

Section 7: Handling and storage

7.1. Precautions for safe handling

No special measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry place

7.3 Specific end uses(s)

Conductive double sided adhesive tabs for holding samples in EM and analytical applications

Section 8: Exposure control and personal protection

8.1. Control parameters

No ingredients listed in this section. Carbon black is fully mixed and bound into the acrylic adhesive.

8.2 Exposure controls

Control procedures:	Avoid creating or accumulating dust or fine particles Wash hands before breaks and at the end of the work Maintain appropriate working environment
Personal protection:	Protective work clothing
Inhalation:	Not normally required
Hands and skin:	Not normally required
Eyes:	Not normally required

(Contd. on page 5)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Product name: EM-Tec super smooth double-sided carbon tabs Document Nr.: SDS00115000612

Regulation EC Nr. 1907/2006 Art.31

October 5th, 2022 Date: Version: 4.0 Page **5** of **10**

(Contd. of page 4)

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance/physical state: Colour: Odour: pH Melting point/range: Boiling point/range: Flammability: Flash point: Evaporation rate: Explosion limits: upper limit: lower limit: Vapour pressure: Relative density: Solubility in water:	Black double sided adhesive tabs on clear PET film Black None Not applicable Not determined Not determined Not determined Not determined Not available Not determined Not determined Not determined Not determined Not determined Not soluble in water
Auto-ignition:	Not determined
Viscosity:	Not applicable

9.2 Other information

None

Section 10: Stability and reactivity

10.1. Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purposes

(Contd. on page 6)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

Regulation EC Nr. 1907/2006 Art.31

 Date:
 October 5th, 2022

 Version:
 4.0
 Page 6 of 10

(Contd. of page 5)

10.4 Conditions to avoid

Contact with incompatible materials

10.5 Incompatible materials

Highly chlorinated-fluorinated solvents, nitrogen tetroxide, chlorine gas, Alkali meta; complexes and organic amines.

10.6 Hazardous decomposition products

Acrylic fumes, CO, CO2

Section 11: Toxicological information

11.1. Information on toxicological effects

Information hazard classes as defined in Regulation (EC) Nr. 1272/2008

Inhalation:	Not classified	
Skin contact:	Not classified	
Eye contact:	Not classified	
Sensitisation:	Not classified	
Germ cell mutagenicity	I: Not classified	
Carcinogenicity:	Not classified	
Reproductive toxicity:	Not classified	
Specific target organ toxicity – single exposure:		Not classified
Specific target organ toxicity – repeated exposure:		Not classified

Toxicological data:

No toxicological data available

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed:	No effects known
If in eyes:	Generally, not an eye irritant
If inhaled:	No effects known
If on skin:	No effects known
Other information:	Health effects are not known

(Contd. on page 7)



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NANOTECHNOLOGY SOLUTIONS SERVING SCIENCE AND INDUSTRY

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

Regulation EC Nr. 1907/2006 Art.31

 Date:
 October 5th, 2022

 Version:
 4.0
 Page 7 of 10

(Contd. of page 6)

11.2. Endocrine disrupting properties

Not listed

11.3. Information on other hazards

There is no additional information

Section 12: Ecological information

12.1. Aquatic toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

No data available

12.3 Bio-accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

Not listed

12.7 Hazardous decomposition products

No information available

(Contd. on page 8)



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Safety Data Sheet			Regula	tion EC Nr. :	1907/2006 Art.31
Product name: EM-Tec super smooth double-s Document Nr.: SDS00115000612				October 5 th , 2022 on: 4.0 Page 8 of 10	
					(Contd. of page 7
Section 13: Disposal con	siderations				
13.1. Waste treatment meth	nods				
Product:	Do not dischar		-		fe way. to an authorised waste
National regulations:	collection point Disposal should	:. l be in accordance w	ith local, st	ate or natio	nal legislation.
Section 14: Transport inf	ormation				
14.1. UN number					
UN-number:		N/A			
14.2 UN proper shipping na	me				
Proper shipping name:		N/A			
14.3 Transport hazard class(es)				
Class: ADR/RID-Classification	code:	N/A N/A			
14.4 Packing group					
Packing:		N/A			
14.5 Incompatible materials	5				
ADR/RID- Environment IMDG-Marine pollutan IATA/ICAO-Environmen	t:	N/A N/A N/A			
14.6 Special precautions for	user				
ADR/RID-Tunnel code:		N/A			(Contd. on page 9



Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873

Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

Date: October 5th, 2022 Version: 4.0 Page 9 of 10

(Contd. of page 8)

IMDG-Ems: IATA/ICAO-PAX: IATA/ICAO-CAO:

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

N/A

N/A

N/A

Not applicable

Section 15: Regulatory information

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

Restrictions according to REACH, Annex XVII: Not listed **List of substance subject to authorization (REACH, Annex XIV)/SVHC – candidate list:** Not listed

15.2 Chemical safety assessment

No information available

Section 16: Other information

RoHS Directive Compliant

This product is fully compliant with the directive 2100/65/EU Annex II (RoHS). It does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's or PBDE's.

WEEE

This product is not a piece of electrical or electronic equipment, and it therefore not governed by Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

Abbreviations:

Asp. Tox	Aspiration hazard	
Carc.	Carcinogenicity	
Exp.	Exposure	
Flam.	Flammable	
GHS	Global Harmonised System of Classification of Labelling	g Chemicals
Irrit.	Irritant	
N/A	Not applicable	
N/E	Not estimated	(Contd. on page 10)



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NANOTECHNOLOGY SOLUTIONS SERVING SCIENCE AND INDUSTRY

Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec super smooth double-sided carbon tabs **Document Nr.:** SDS00115000612

 Date:
 October 5th, 2022

 Version:
 4.0
 Page 10 of 10

(Contd. of page 9)

NOEC	No observed effect concentration
LC50	Lethal dose single exposure to causing 50% lethality
LD50	Lethal dose 50% corresponds to causing 50% lethality during a specific time
PBT	Persistent Bio-accumulative and Toxic
WEL	Workplace Exposure Limit
Repr.	Reproductive toxicant
RoHS	Restriction of Hazardous Substance
vPvB	very Persistent and very Bio-accumulative
WEEE	Waste Electrical and Electronic Equipment

This product should be stored, handled and used in accordance with good industrial hygiene practices and in accordance with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It does not guarantee any specific properties.

It is the responsibility of the user to query and verify any information seeming suspect or where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, state, federal and international regulations.

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