

**Informationsblatt**  
**in Anlehnung an das Format des Sicherheitsdatenblattes**

**Information Sheet**  
**based on the Format of the Material Safety Data Sheet**



**!!! Bitte unbedingt lesen - Please read carefully !!!**

## Vorwort | Preamble

### **Deutsche Version**

Dieses Produkt ist ein Erzeugnis im Sinne von REACH (Verordnung (EG) Nr. 1907/2006). Es besteht daher keine rechtliche Verpflichtung, dem Empfänger ein Sicherheitsdatenblatt vorzulegen.

Zudem ist das Produkt nicht kennzeichnungspflichtig.

Da jedoch bei der Bearbeitung des Erzeugnisses (z.B. durch Schleifen, Schneiden, Fräsen o.ä. Verfahren) größere Mengen Staub und damit möglicherweise seine Einzelkomponenten freigesetzt werden können, stellen wir Ihnen auf freiwilliger Basis dieses Informationsblatt zur Verfügung. Es informiert Sie über unser Produkt und hilft Ihnen bei der Einschätzung und Eindämmung von möglichen Gefahren, die von diesen Einzelkomponenten ausgehen können.

Da wir nicht verpflichtet sind, Sicherheitsdatenblätter auszustellen, möchten wir den internen Aufwand auch möglichst geringhalten. Sie erhalten unsere Informationsblätter daher ausschließlich in englischer Sprache.

### **English version**

This finished product is an article as defined by REACH (Regulation (EC) No 1907/2006). And therefore, there is no legal obligation to provide the recipient with a safety data sheet.

In addition, the product is not subject to labeling.

However, as the processing of the product (such as grinding, cutting, milling or similar processes) can release large quantities of dust and possibly its individual components, we provide this information sheet on a voluntary basis.

It informs you about our product and helps you to estimate and control the potential dangers that may arise from these individual components.

Since we are not obligated to issue material safety data sheets, we also want to keep the internal effort as low as possible. Therefore, you will receive our information sheet exclusively in English.

**!!! Bitte unbedingt lesen - Please read carefully !!!**

# Information Sheet for Article: SW - COMMUTATOR SHEET

## 1 Identification

### GHS Product Identifier

SW - Commutator M P

### Other means of identification

SW - Commutator M P sheets consist of minimum 90% Muscovite alternatively Phlogopite impregnated with a specially developed epoxy resin.

### Recommended use of the chemical and restriction on use

SW - Commutator M P sheets are hard, dense mica plates used in segments, separators and spacers within a wide range of small and medium size commutators for all kind of household applications, industrial equipments and power tools.

### Supplier's details

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### Emergency phone number

The common European emergency number is **112**

Further emergency numbers can be found at [https://en.wikipedia.org/wiki/List\\_of\\_emergency\\_telephone\\_numbers](https://en.wikipedia.org/wiki/List_of_emergency_telephone_numbers)

## 2 Hazard(s) identification

### Classification of the substance or mixture

The product is not classified.

### GHS label elements

### Other hazards which do not result in classification

- Temporary irritation (itching) of a purely mechanical nature, affecting skin, eyes and upper respiratory tracts
- Allergies in extremely rare instances
- The formation of non-fibrous dust particles (broken pieces in different size) which can be inhaled (i.e. able to be breathed in the upper respiratory tract) or fibrous particles which are not respirable, in particular processes with high risk of dust generation

**The following GHS label elements and hazards are not representative for the final product, they are merely information about its components.**

It is the responsibility of the user to assess potential exposure based on processing of the product.

### Mica-group minerals



*Danger!* According to the classification provided by companies to ECHA in CLP notifications this substance causes damage to organs (Lungs) through prolonged or repeated exposure, causes serious eye irritation, may cause respiratory irritation and causes skin irritation.

### Bisphenol A epoxy resin

(REACH-No) 01-2119456619-26-xxxx



*Warning!* According to the **harmonised classification and labelling** (CLP00) approved by the European Union, this substance is toxic to aquatic life with long lasting effects, causes serious eye irritation, causes skin irritation and may cause an allergic skin reaction.

## 3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
mica-group minerals	12001-26-2	215-479-3	90.2 - 90.7	Muscovite [KAl <sub>2</sub> (AlSi <sub>3</sub> O <sub>10</sub> )(OH) <sub>2</sub> ], Phlogopite [KMg <sub>3</sub> (AlSi <sub>3</sub> O <sub>10</sub> )(OH) <sub>2</sub> ]
epoxy resins, bisphenol A derived	25068-38-6	500-033-5	9.3 - 9.8	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane

## 4 First-aid measures

### Description of necessary first-aid measures

#### P300-Series: Response

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and Keep at rest in a position 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.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.

### **Most important symptoms/effects, acute and delayed**

Unknown

## Indication of immediate medical attention and special treatment needed, if necessary

Unknown

## 5 Fire-fighting measures

### Suitable extinguishing media

#### **P300-Series: Response**

- P370+P378 In case of fire: Use water spray or maybe foam to extinguish.  
P373 DO NOT fight fire when fire reaches explosives.  
P374 Fight fire with normal precautions from a reasonable distance.

### Specific hazards arising from the chemical

Do not breathe smoke gasses: carbon monoxide, phenols, formaldehyde.

### Special protective actions for fire-fighters

NFPA 704, Standard System:



When entering burning area: Wear self contained breathing apparatus.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Minimize airborne dust. Compressed air or dry sweeping should not be used for cleaning. Provide operators involved in cleaning with dust masks if necessary. See section 8.3 "Individual protection measures".

### Environmental precautions

N/A

### Methods and materials for containment and cleaning up

Avoid clean up procedures that could result in dust generation or water pollution. Do not use compressed air for clean up. Frequently clean the work area with HEPA filtered vacuum or wet sweeping to minimize the accumulation of debris. Dispose in closed containers. Dispose of contaminated material as directed.

## 7 Handling and storage

### Precautions for safe handling

#### **P100-Series: General**

- P101 If medical advice is needed, have product container or label at hand.  
P103 Read label before use.

#### **P200-Series: Prevention**

- P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Conditions for safe storage, including any incompatibilities

Conditions to increase the durability not because of safety reasons:

The product has to be stored flat, below temperatures of 23 °C and a relative humidity of 75 %. Atmosphere has also to be free of corrosive gases.

## 8 Exposure controls/personal protection

### Control parameters

According to national and local regulations for dust exposure. Hygiene standards and exposure limits may differ from country to country. Check those currently applying in your country and comply with regulations.

Updates on OELs can be found on the following websites:

IFA - Technical information Occupational exposure limit values (OELs):

<http://www.dguv.de/ifa/fachinfos/occupational-exposure-limit-values/index.jsp>

GESTIS International Limit Values:

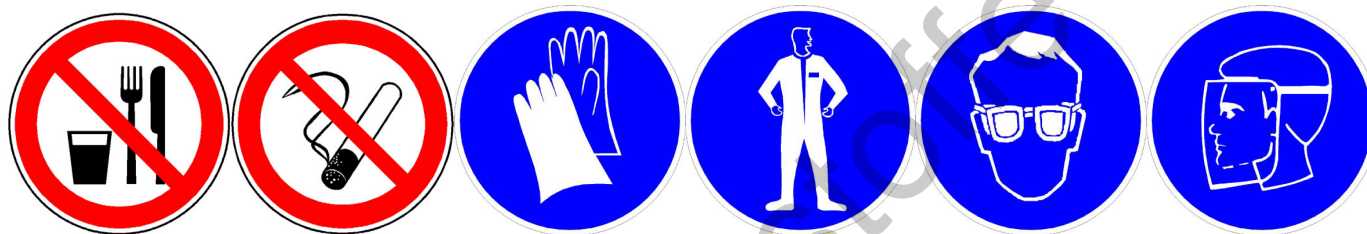
<http://limitvalue.ifa.dguv.de/>

### Appropriate engineering controls

Use engineering controls such as local exhaust ventilation, point of generation dust collection, down draft work stations, emission controlling tool designs, and materials handling equipment designed to minimize airborne fiber emissions.

Review your applications in order to identify potential sources of dust exposure. If necessary, conduct personal air monitoring.

### Individual protection measures



### P200-Series: Prevention

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands and body thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Workers should be informed on:

- the requirements regarding smoking, eating and drinking at the workplace;
- the requirements for protective equipment and clothing.

Workers should be trained on:

- the good working practices to limit dust emission;
- the proper use of protective equipment.

## 9 Physical and chemical properties

### Physical and chemical properties

Parameter	Value	Method	Note
Appearance	solid sheets		green / grey
Odour	none		
Odour threshold			N/A
pH		DIN 19268	N/A
Melting point/freezing point	>1330°C		
Initial boiling point and boiling range			N/A
Flash point	> 200 °C	ISO 1523	literature value
Evaporation rate			ND
Flammability (solid, gas)			ND
Upper/lower flammability or explosive limits			ND
Vapour pressure			ND
Vapour density			ND (air = 1)
Relative density	2.1 - 2.4 g/cm <sup>3</sup>	ISO 2811-1	water = 1 (20°C)
Solubility(ies)	not soluble in water		
Partition coefficient: n-octanol/water			ND
Auto-ignition temperature	> 200 °C		literature value
Decomposition temperature	> 200 °C (at air)		literature value
Viscosity		ISO 1523	ND
Explosive properties			N/A
Oxidising properties			N/A
N/A = not applicable		ND = not determined	

## 10 Stability and reactivity

### Reactivity

Unknown

### Chemical stability

Chemically inert

### Possibility of hazardous reactions

No dangerous reactions are expected when used as intended.

### Conditions to avoid

Avoid higher temperatures than room temperature (appr. 23 °C). Not because of safety reasons, but it may change the properties.

### Incompatible materials

Unknown

### Hazardous decomposition products

Unknown

## 11 Toxicological information

### Toxicological (health) effects

#### Acute toxicity - oral

The product is not classified.

#### Acute toxicity - dermal

The product is not classified.

Acute toxicity - inhalation

The product is not classified.

Skin corrosion / irritation

The product is not classified.

**Mica-group minerals** cause skin irritation. Skin Irrit. 2

**Bisphenol A epoxy resin** causes skin irritation. Skin Irrit. 2

Serious eye damage/ eye irritation

The product is not classified.

**Mica-group minerals** cause serious eye irritation. Eye Irrit. 2

**Bisphenol A epoxy resin** causes serious eye irritation. Eye Irrit. 2

Respiratory sensitisation

The product is not classified.

Skin sensitisation

The product is not classified.

**Bisphenol A epoxy resin** may cause an allergic skin reaction. Skin Sens. 1

Aspiration hazard

The product is not classified.

Reproductive toxicity

The product is not classified.

Effects on or via lactation

The product is not classified.

Germ cell mutagenicity

The product is not classified.

Carcinogenesis

The product is not classified.

Specific target organ toxicity - single

The product is not classified.

**Mica-group minerals** may cause respiratory irritation. STOT SE 3

Specific target organ toxicity - repeated

The product is not classified.

**Mica-group minerals** cause damage to organs through prolonged or repeated exposure. STOT RE 1 (Lungs)

**Information on the likely routes of exposure**

See section 11.1 "Toxicological (health) effects".

**Symptoms related to the physical, chemical and toxicological characteristics**

See section 11.1 "Toxicological (health) effects".

**Delayed and immediate effects and also chronic effects from short and long term exposure**

See section 11.1 "Toxicological (health) effects".

**Numerical measures of toxicity (such as acute toxicity estimates)**

Unknown

**Interactive effects**

Unknown

#### **Where specific chemical data are not available**

Unknown

#### **Mixtures**

Unknown

#### **Mixture versus ingredient information**

Unknown

#### **Other information**

Unknown

## **12 Ecological information**

### **Toxicity**

Hazardous to the aquatic environment (acute / short-term)

The product is not classified.

Hazardous to the aquatic environment (long-term)

The product is not classified.

**Bisphenol A epoxy resin** is toxic to aquatic life with long lasting effects. Aquatic Chronic 2

Hazardous to the ozone layer

The product is not classified.

### **Persistence and degradability**

Poorly degradable

### **Bioaccumulative potential**

Unknown

### **Mobility in soil**

No mobility in soil

### **Other adverse effects**

No known significant effects or critical hazards.

## **13 Disposal considerations**

### **Disposal methods**

Special Precautions

Unknown

International Regulations:

Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

EU Regulations:

Waste from this product is not classified as "hazardous" or "special" under European Union regulations.

Disposal is permitted at landfills licensed for industrial waste.

Waste Classifications:

04 02 09 wastes from composite materials (impregnated textile, elastomer, plastomer)

07 02 13 waste plastic



## 14 Transport information

### UN Number

N/A

### UN Proper Shipping Name

N/A

### Transport hazard class(es)

The product is not classified.

### Packing group, if applicable

N/A

### Environmental hazards

N/A

### Special precautions for user

N/A

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

N/A

## 15 Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### Transport Regulations:

[ADR 2019 - European Agreement concerning the International Carriage of Dangerous Goods by Road from 1 January 2019](#)

[ADN 2019 - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways from 1 January 2019](#)

[IMDG-Code - International Maritime Dangerous Goods Code 2016 inkl. Amdt. 38-16 from 08 April 2016](#)

[RID 2017 - Regulations concerning the International Transport of Dangerous Goods by Rail from 1 January 2017](#)

[ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air from 21 June 2017](#)

[IATA-DGR - Dangerous Goods Regulations](#)

#### US Regulations:

[U.S. Code of Federal Regulations \(CFR\). Title 40: Protection of Environment](#)

#### EU Regulations:

[EXPOSURE Legislation to Carcinogens or Mutagens](#)

[REACH Legislation](#)

[CLP Legislation](#)

[RoHS Legislation](#)

[Waste Legislation](#)

#### National Regulations (Germany):

[Technische Regeln für Gefahrstoffe \(TRGS\)](#)

[Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen \(AwSV\) vom 18. April 2017](#)

[Verordnung zum Schutz vor Gefahrstoffen \(Gefahrstoffverordnung - GefStoffV\) vom 29. März 2017](#)

[Gesetz zur Ordnung des Wasserhaushalts \(Wasserhaushaltsgesetz - WHG\) vom 18. Juli 2017](#)

[Verordnung zur Sanktionsbewehrung gemeinschafts oder unionsrechtlicher Verordnungen auf dem Gebiet der](#)

[Chemikaliensicherheit \(Chemikalien-Sanktionsverordnung -](#)

[ChemSanktionsV\) vom 10. Mai 2016](#)

**Other information**Abbreviations

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AWSV	Ordinance on facilities for the handling of substances hazardous to water
AS/NZS	Standards Australia
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
CLP	Classification, Labelling and Packaging Regulation (EC) No 1272/2008
CND	Content not determined
DGUV	German Social Accident Insurance
DIN	Standard of the German Institute for Standardization
ECHA	European Chemicals Agency
EH	Environmental Hygiene
EINECS	European INventory of Existing Commercial chemical Substances
EN	European Standard
EU	European Union
GefStoffV	Hazardous Substances Ordinance
GESTIS	International limit values for chemical agents
GHS	Globally Harmonised System
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization - Technical Instructions
IFA	Institute for Occupational Safety of the German Social Accident Insurance
IMDG-Code	International Maritime Dangerous Goods Code
ISO	Standard of the International Organization for Standardization
MARPOL	Maritime Pollution Convention / International Convention for the Prevention of Pollution from Ships
MDHS	Methods for the Determination of Hazardous Substances
MFS	Minimum Functional Standards
MMVF	Man-Made Vitreous Fibers
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
OELs	Occupational exposure limit values
OSHA	Occupational Safety and Health Administration
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail
RoHS	Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment
TRGS	Technical Regulations for Hazardous Substances
UN	United Nations
WHG	Act on the Regulation of water balance
WHO	World Health Organization

Literature and data sources

[Bundesanstalt für Arbeitsschutz und Arbeitsmedizin](#)

[Bundesministerium der Justiz und für Verbraucherschutz](#) (Federal German Ministry of Justice and Consumer Protection)

[Deutsche Gesetzliche Unfallversicherung](#) (German Social Accident Insurance)

[European Chemicals Agency \(ECHA\)](#)

[European Commission](#)

[EUR-Lex / Access to European Union law](#)

[Umweltbundesamt – REACH](#)

[United States Environmental Protection Agency \(EPA\)](#)

Further information

The information contained in this information sheet is based on information believed to be accurate as of the date of this sheet. However, no express or implied warranty is assumed for the correctness or completeness of the information and safety instructions given in this information sheet. Furthermore, no explicit or implied permission is given to use a patented invention without a license. Furthermore, the seller can not accept any liability for bodily injury or property damage resulting from misuse, neglect of recommended application procedures or the hazards underlying the product.

Saveway Isolierstoffe GmbH