

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 1 /14

1 - IDENTIFICATION

Product identifier	EP150-Stick-on
Product code	348E-UMKF-8EJP-G3M8
Recommended use of the chemical and restrictions on use	Adhesives, sealants
Company	Hottinger Brüel & Kjaer
Address	19 Bartlett st. Marlborough, MA 01590
Telephone number	+1.508.804.3268
Emergency telephone number	Chemtrec: 1-800-424-9300. International: 1-703-527-3887
E-mail	support@hbm.com

2 - HAZARDS IDENTIFICATION

Classification of the chemical	Skin corrosion/irritation - Category 2 Skin sensitizer – Category 1 Serious eye damage/eye irritation - Category 2A Specific target organ toxicity – Repeated exposure – Category 2 Hazardous to the aquatic environmental, short-term Acute – Category 2 Hazardous to the aquatic environmental, long-term Chronic – Category 2.
Signal word	DANGER. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.
Hazard statement(s)	H373 May cause damage to the blood system by repeated or prolonged exposure. H401 Toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 2 /14

Symbol(s)



PREVENTION

P264 Wash hands thoroughly after handling.

P272 contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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

RESPONSE

P319 Get medical help if you feel unwell.

Precautionary statement(s) P391 Collect spillage.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P362 + P364 Take off contaminated clothing and wash it before reuse.

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

DISPOSAL

P501 Dispose of contents and container according to current regulations.

Classification system adopted

Hazard Communication Standard (HCS) 29 CFR: 1910.1200 - Appendix A.

Adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations, 8 ed.

Other hazards which do not result in classification

The product has no other hazards.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 3 /14

3 – COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE

Impurities and stabilizing additives contributing to the hazard (%m):

Components	Concentration %	Number CAS	GHS Classification*
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	75 - < 80 %	25068-38-6	H315; H317; H319; H401; H411
Dapsone; 4,4'-diamino diphenyl sulfone	15 - < 20 %	80-08-0	H302; H373

* Hazard statements are described in section 16.

4 - FIRST-AID MEASURES

Inhalation	Remove the victim to a ventilated place and keep him at rest in a position that does not make breathing difficult. If you feel unwell, contact a POISON CENTER or a doctor. Take this SDS.
Skin contact	IF ON SKIN: Remove all contaminated clothing. Rinse skin with soap and water or take a shower. If necessary, call a POISON CENTER or doctor / physician. Take this SDS.
Eye contact	Rinse thoroughly with water for several minutes. If using contact lenses, remove them if it is easy. If eye irritation persists consult a doctor. Take this SDS.
Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Rinse victim's mouth with plenty of water. If vomiting occurs, tilt the patient forward or place the patient on the left side (if possible upwards) to keep the airway open and prevent aspiration. Keep the patient silent and maintain normal body temperature. Consult a POISON CENTER or doctor. Take this SDS.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 4 /14

Most important symptoms and effects, acute and delayed	Exposure to the product causes skin irritation with redness, dryness and peeling, and exposure to the eyes causes pain, redness, and tearing. Exposure can cause allergic skin reactions with dermatitis and itching. May cause damage to the blood system by repeated or prolonged exposure with hemolytic anemia accompanied with the formation of methemoglobin.
Indication of any immediate medical attention and special treatment needed	Avoid contact with the product when helping the victim. Exposure treatment should be directed towards the control of the patient's symptoms and clinical condition. In case of contact with the skin, do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing media	Suitable: Compatible with water spray, dry chemical, foam, or carbon dioxide (CO ₂). Unsuitable: Water jet directly under the burning product.
Specific hazards arising from the chemical product	The combustion of the chemical products or containers may form toxic and irritating gases such as carbon monoxide (CO), carbon dioxide (CO ₂).
Specific extinguishing methods	Self-contained breathing apparatus (SCBA) operated in positive pressure mode and complete protective clothing. Containers and tanks involved in the fire should be cooled with water laterally.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions	Do not smoke. Avoid contact with the product. If necessary, use personal protective equipment as described in section 8.
Protective equipment	Use protective equipment as described in Section 8. Wear PPE complete with safety glasses, butyl rubber safety gloves, suitable protective clothing, and closed shoes. The material used must be waterproof. In case of leakage, where exposure is high, the use of a respirator with a for powder filter.
Emergency procedures	

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 5 /14

Environmental precautions	Isolate spills from ignition sources. Keep unauthorized persons away from the area. Stop the leak if it can be done without risk. Prevent the product from reaching the soil and water courses. Notify the relevant authorities if the product has caused environmental pollution (if it has reached water courses or if it has contaminated the soil or vegetation).
Methods and materials for containment	Absorb the remaining product with dry sand, earth, vermiculite, or any other inert material.
Methods and materials for cleaning up	Collect spilled product and place in suitable containers. Place the adsorbed material in appropriate containers and remove them to a safe place. For final destination, proceed according to Section 13 of this SDS.

7- HANDLING AND STORAGE

Precautions for safe handling	Handle in a ventilated area or with a general local ventilation / exhaust system. Avoid formation of powder. Avoid exposure to the product. Avoid contact with incompatible materials. Use personal protective equipment as described in section 8. Wash hands and face thoroughly after handling and before eating, drinking, smoking, or using the bathroom. Contaminated clothing must be changed and washed before reuse.
Conditions for safe storage, including any incompatibilities	Store in a well-ventilated, dry, cool place away from sunlight. Keep the packaging tightly closed and in an area accessible only to authorized persons. Keep away from sources of ignition and heat. Keep away from incompatible materials. The product may be incompatible with strong acids, acids, strong oxidizing agents.

8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Occupational exposure limit Not established.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 6 /14

Biological limit	Not established.
Appropriate engineering controls	Promote direct mechanical ventilation and exhaust system to the outside environment. These measures help reduce exposure to product.
Individual protection measures, such as personal protective equipment	
Respiratory protection	In case of dust formation, use respiratory protection equipment against dust - P2. Based on the inhalation hazard of the product, a risk assessment must be carried out to adequately define respiratory protection in view of the conditions of use of the product.
Hand protection	Nitrile rubber safety gloves, suitable protective clothing, and closed shoes.
Eye protection	Safety glasses with side protection.
Skin and body protection	Proper protective clothing and closed shoes are recommended.
Special precautions	Not applicable.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (physical state, color, etc.)	Solid, light brown.
Odour	Adhesives, sealant.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling, and boiling range	Not available.
Flashpoint	252°C.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 7 /14

Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Odour threshold	Not available.
Evaporation rate	Not available.
Flammability	Not available.
Viscosity	Not available.
Other information	Not available.

10 - STABILITY AND REACTIVITY

Reactivity and Chemical stability	Product is stable under normal conditions of temperature and pressure.
Possibility of hazardous reactions	The product can react dangerously in contact with incompatible materials.
Conditions to avoid	High temperatures, heat, friction and contact with incompatible materials.
Incompatible material	The product may be incompatible with strong acids, acids, strong oxidizing agents.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 8 /14

Hazardous decomposition products Decomposition of product may generate toxic gases such as CO, CO₂, and other toxic gases.

11 - TOXICOLOGICAL INFORMATION

The product is not expected to be toxic to the oral, dermal or inhalation routes.

Dapsone; 4,4'-diamino diphenyl sulfone:

LD₅₀ (oral, rats, males): 630 mg/kg.

LD₅₀ (oral, rats, females): 650 mg/kg.

Reaction product: bisphenol-A-(epichlorhydrin):

LD₅₀ (oral, rats): 2000 mg/kg.

LD₅₀ (dermal, rabbits): 20,000 mg/kg.

Acute Toxicity Estimate Mixture – ATE:

ATEmix (oral): > 2,000 mg/kg.

Exposure to the product causes skin irritation with redness, dryness, and peeling.

Reaction product: bisphenol-A-(epichlorhydrin):

Rabbit skin irritation test. Result: irritating.

Exposure to the product causes and exposure to the eyes causes pain, redness, and tearing.

Reaction product: bisphenol-A-(epichlorhydrin):

Rabbit eye irritation test. Result: eye irritant.

Exposure can cause allergic skin reactions with dermatitis and itching.

Reaction product: bisphenol-A-(epichlorhydrin):

Based on the report on human cases and tests on human volunteers and the results of guinea pig skin sensitization tests positives.

The product is not expected to have mutagenic potential.

Reaction product: bisphenol-A-(epichlorhydrin):

In vitro gene mutation study in mammalian cells: negative result.

Dapsone; 4,4'-diamino diphenyl sulfone:

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 9 /14

	<p>The available in-vivo Mouse micronucleus test (bone-marrow), it can be concluded that Dapsone is not mutagenic in-vivo.</p> <p>This is also confirmed by other in-vitro studies run on Salmonella TA98, TA100, TA 1835, TA 1537 and E. Coli strains WP2 UVRA, WP2 pKM 101 and WP2 uvrA pKM 101, there was no mutagenic effect.</p> <p>Under mammalian gene mutation test on tk-locus of L5178 Y mouse lymphoma cells, 4,4 -DDS is not mutagenic in mammalian cells.</p>
Carcinogenicity	The product is not expected to have carcinogenic potential.
Reproductive toxicity	It is not expected that the product presents reproductive toxicity.
Specific target organ toxicity – single exposure	<p>Is not expected that the product to cause target organ toxicity from single exposure.</p> <p>May cause damage to the blood system by repeated or prolonged exposure with hemolytic anemia accompanied with the formation of methemoglobin.</p> <p><u>Dapsone; 4,4'-diamino diphenyl sulfone:</u></p>
Specific target organ toxicity – repeated exposure	<p>In a study conducted by gavage for 90 days in rats, treatment-related findings were observed at 30 mg/kg/day or more. The main effects were skin cyanosis, hyperactivity, increased WBC count, decreased RBC count, hemoglobin and hematocrit concentration, increased prothrombin time, splenomegaly (especially in men), mild splenic congestion, and mild pigmentation of the spleen. These effects are typical of methemoglobinemia.</p>
Aspiration hazard	It is not expected that the product presents aspiration hazard.

12 - ECOLOGICAL INFORMATION

Environmental effects, behavior, and fate of the product

Ecotoxicity Toxic to aquatic life with long lasting effects.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 10 /14

	<u>Reaction product: bisphenol-A-(epichlorhydrin):</u> EC ₅₀ (<i>Daphnia magna</i> , 48h): 1.1 - 2.8 mg/L. EC ₅₀ (<i>Scenedesmus capricornutum</i> , 72h): 9.4 mg/L.
Persistence and degradability	The product is expected to exhibit persistence and not be rapidly degraded. It is expected that the product has low bioaccumulative potential in aquatic organisms.
Bioaccumulative potential	<u>Reaction product: bisphenol-A-(epichlorhydrin):</u> Log k _{ow} : 3 at 25°C.
Mobility in soil:	Not available.
Other adverse effects	There are not known adverse environmental effects of the product.

13 - DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Must be disposed of as hazardous waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific product. Keep product residues in their original containers and properly closed. Disposal should be in accordance with the regulations for the product. Do not reuse empty containers. These may contain product residues and should be kept closed and sent for appropriate disposal as established for the product.
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14 - TRANSPORT INFORMATION

International regulations	UN – “United Nations”
Land	Recommendations on the TRANSPORT OF DANGEROUS GOODS. Model Regulations
	DOT - U.S. Department of Transportation
UN number	3077

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 11 /14

UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin)
Transport hazard class(es)	9
Subsidiary risk	NA
Packing group	III
Sea	IMO – International Maritime Organization International Maritime Dangerous Goods Code (IMDG Code)
UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin)
Transport hazard class(es)	9
Subsidiary risk	NA
Packing group	III
Environmental hazards	Product is considered a marine pollutant..
EmS	F-A, S-F
Air	IATA – International Air Transport Association Dangerous Goods Regulation (DGR)
UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin)
Transport hazard class(es)	9
Subsidiary risk	NA
Packing group	III
Transport in bulk according to MARPOL 73/78, Annex II, and the IBC Code	Consult regulations: - International Maritime Organization. MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, consolidated edition. IMO, London, 2006. - International Maritime Organization. IBC code: International code for the construction and equipment of shipping carrying

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 12 /14

Special precautions dangerous chemicals in bulk: With Standards and guidelines relevant to the code. IMO, London, 2007.
There is no need of special precautions.

15 - REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation specific for the substance or mixture International Labor Organization C170 Chemicals Convention, from June 25th, 1990: Occupational Safety and Health – Toxic Substances and Agents.
Hazard Communication Standard (HCS) 29 CFR: 1910.1200 - Appendix A, B, C, D, E, F.
GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS). 8. rev. ed.
U.S. Federal Regulations: United States inventory (TSCA): reaction product: bisphenol-A-(epichlorhydrin); epoxy resin is listed. Dapsone; 4,4'-diamino diphenyl sulfone is listed.
California Proposition 65: Ingredients are not listed.

16 - OTHER INFORMATION

This SDS was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other materials, and use various forms of those indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires the prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

SDS elaborated in August 2021.

Hazard phrases described in section 3:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 13 /14

H319 Causes serious eye irritation.

H373 May cause damage to the blood system by repeated or prolonged exposure.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists

CAS – Chemical Abstracts Service

LC₅₀ – Lethal Concentration 50%

LD₅₀ – Lethal Dose 50%

ERPG - Emergency Response Planning Guidelines

NIOSH – National Institute of Occupational Safety and Health

OSHA – Occupational Safety & Health Administration

PEL – Permissible Exposure Limit

REL – Recommended Exposure Limit

STEL – Short Term Exposure Limit

TLV – Threshold Limit Value

TWA – Time Weighted Average

Bibliographic references:

ACGIH. AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2021.

ECHA. EUROPEAN CHEMICAL AGENCY. Available in: <<https://echa.europa.eu/>>. Access in: Aug. 2021.

ECHEM. The Global Portal to Information on Chemical Substances OECD. Available in: <https://www.echemportal.org/echemportal/substancesearch/substancesearch_execute.action>. Access in: Aug. 2021.

SDS

In compliance with HCS/HazCom 2012



SAFETY DATA SHEET

Product: EP150-Stick-on

Revision: 00

Date: 8/24/2021

Pages: 14 /14

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GHS. Globally Harmonized System of Classification and Labelling of Chemicals. 8. rev. ed. New York: United Nations, 2019.

HSDB. HAZARDOUS SUBSTANCES DATA BANK. Available in: <[http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen? HSDB](http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB)>. Access in: Aug. 2021..

IARC. INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Available in: <<http://monographs.iarc.fr/ENG/Classification/index.php>>. Access in: Aug. 2021.

NIOSH. NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. Available in: <<http://www.cdc.gov/niosh/>>. Access in: Aug. 2021.

NJ. STATE OF NEW JERSEY - Department of Health. Available in: <<http://nj.gov/health/eoh/rtkweb/odispubr.shtml>>. Access in: Aug. 2021.

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