Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

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

1.1. **product identifiers**

Article No. (manufacturer/supplier)	2052A
Trade name/designation	DWH 316 resin

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

1.3. **Details of the supplier of the safety data sheet**

supplier (manufacturer/importer/downstream user/distributor)

DIAMANT Metallplastic GmbH
Hontzlarstr. 12-14 — Telephone: +49(0)2166-98360
41238 Mönchengladbach — Telefax: +49(0)2166-83025

Department responsible for information:
Lab
E-mail (competent person) — info@diamant-polymer.de

1.4. **Emergency telephone number**
Emergency telephone number — +49(0)2166-98360
Only available during office hours.

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture** *

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements** *

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Warning

Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P233	Keep container tightly closed.
P261	Avoid breathing vapours.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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 rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

Bisphenole A-epoxy resin
N,N-Bis(2-3-epoxypropyl)aniline

(Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2))

Supplemental hazard information

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures** *

Description Epoxyresinmix + Fillers

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
500-033-5 25068-38-6 603-074-00-8	01-2119456619-26-XXXX Bisphenole A-epoxy resin Eye Irrit. 2 H319 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 Specific concentration limit (SCL): Eye Irrit. 2 H319 >= 5 / Skin Irrit. 2 H315 >= 5	25 - 50
218-259-5 2095-06-9	01-2120782027-53-XXXX N,N-Bis(2-3-epoxypropyl)aniline Acute Tox. 4 H302 / Skin Sens. 1 H317 / Muta. 2 H341 / Aquatic Chronic 4 H413	10 - 20
618-939-5 933999-84-9	01-2119463471-41-XXXX (Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)) Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Aquatic Chronic 3 H412	1 - 2,5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 20 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

not applicable

DNEL:

Bisphenole A-epoxy resin
Index No. 603-074-00-8 / EC No. 500-033-5 / CAS No. 25068-38-6
DNEL acute dermal, short-term (systemic), Workers: 8,33 mg/kg
DNEL long-term dermal (systemic), Workers: 8,33 mg/kg
DNEL acute inhalative (systemic), Workers: 12,25 mg/m³
DNEL long-term inhalative (systemic), Workers: 12,25 mg/m³
DNEL short-term oral (acute), Consumer: 0,75 mg/kg
DNEL long-term oral (repeated), Consumer: 0,75 mg/kg
DNEL acute dermal, short-term (systemic), Consumer: 3,571 mg/kg
DNEL long-term dermal (systemic), Consumer: 3,571 mg/kg
DNEL acute inhalative (systemic), Consumer: 0,75 mg/m³
DNEL long-term inhalative (systemic), Consumer: 0,75 mg/m³

PNEC:

Bisphenole A-epoxy resin
Index No. 603-074-00-8 / EC No. 500-033-5 / CAS No. 25068-38-6
PNEC aquatic, freshwater: 0,006 mg/L
PNEC aquatic, marine water: 0,0006 mg/L
PNEC sediment, freshwater: 0,996 mg/kg
PNEC sediment, marine water: 0,0996 mg/kg
PNEC, soil: 0,196 mg/kg
PNEC sewage treatment plant (STP): 10 mg/L
PNEC Secondary Poisoning: 11 mg/kg

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: Nitrile rubber or butyl rubber
Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:	
Physical state:	**Liquid**
Colour:	**dark grey**
Odour:	**characteristic**
Odour threshold:	**not applicable**
pH at 20 °C:	**not applicable**
Melting point/freezing point:	**not applicable**

Initial boiling point and boiling range:	**not applicable**
Flash point:	**135 °C** Method: DIN 53213-1
Evaporation rate:	**not applicable**
flammability	
Burning time:	**not applicable**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**not applicable**
Upper explosion limit:	**not applicable**
Vapour pressure at 20 °C:	**not applicable**
Vapour density:	**not applicable**
Relative density:	
Density at 20 °C:	**1,75 g/cm³**
Solubility(ies):	
Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**not applicable**
Decomposition temperature:	**not applicable**
Viscosity at °C:	**Pastös**
Explosive properties:	**not applicable**
Oxidising properties:	**not applicable**

9.2. **Other information** *

Solid content:	**99,75 weight-%**
solvent content:	
Organic solvents:	**0 weight-%**
Water:	**0 weight-%**

SECTION 10: Stability and reactivity

10.1. **Reactivity**
No information available.

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**
not applicable

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

11.1. **Information on toxicological effects**

Acute toxicity

Bisphenole A-epoxy resin
oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: 23 mg/kg

N,N-Bis(2-3-epoxypropyl)aniline
oral, LD50, Rat

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye irritation.

Bisphenole A-epoxy resin
Skin (4 h)

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Bisphenole A-epoxy resin
Skin:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Suspected of causing genetic defects.

STOT-single exposure; STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

Bisphenole A-epoxy resin
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 1,75 mg/L (96 h)
Daphnia toxicity, EC50: 1,8 mg/L (48 h)
Algae toxicity, ErC50: 11 mg/L

N,N-Bis(2-3-epoxypropyl)aniline
Fish toxicity, LC50, Leuciscus idus (golden orfe): 4,2 mg/L (96 h)
Daphnia toxicity, EC50, Daphnia magna: 18 mg/L (48 h)

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

Bisphenole A-epoxy resin
Fish toxicity, LC50 (96 h)

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Other adverse effects**
No information available.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC
080111* Waste paint and varnish containing organic solvents or other dangerous substances
*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN number**

UN 3082

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Environmentally hazardous substance, liquid, n.o.s. ((Bisphenol A epoxy resin))
Sea transport (IMDG):	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((Bisphenol A epoxy resin))
Air transport (ICAO-TI / IATA-DGR):	Environmentally hazardous substance, liquid, n.o.s. ((Bisphenol A epoxy resin))

14.3. **Transport hazard class(es)**

9

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID)	UMWELTGEFÄHRDEND
Marine pollutant	p / (Bisphenol A epoxy resin)

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code	-
in packages <= 5 litres	"Kein Gut der Klasse 9"

Sea transport (IMDG)

EmS-No.	F-A, S-F
in packages <= 5 litres	"not restricted 2.10.2.7"

Air transport (ICAO-TI / IATA-DGR)

in packages <= 5 litres	"Not restricted, as per Special Provision A197"

14.7. **Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]
VOC-value (in g/L): 4

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. **Chemical Safety Assessment** *

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
500-033-5 25068-38-6	Bisphenole A-epoxy resin	01-2119456619-26-XXXX
218-259-5 2095-06-9	N,N-Bis(2-3-epoxypropyl)aniline	01-2120782027-53-XXXX
618-939-5 933999-84-9	(Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2))	01-2119463471-41-XXXX

SECTION 16: Other information *

Full text of classification in section 3

Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Aquatic Chronic 4 / H413	Hazardous to the aquatic environment	May cause long lasting harmful effects to aquatic life.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Skin Irrit. 2	Skin corrosion/irritation	Calculation method.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Muta. 2	Germ cell mutagenicity	Calculation method.
Aquatic Chronic 2	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information
Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version