

**SAFETY DATA SHEET**

Revision Date : 17.October 2023  
Date of first issue : 1.October 2004  
SDS Number : F-31331

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**SECTION 1: Identification of the substance/mixture and of the Company/undertaking**

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**1.1 Product identifier**

Trade name : AR-455DV

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

Use of the Substance/Mixture : Reprographic agents (Developer)

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

Company EU : SHARP Manufacturing France S.A.

Route de Bollwiller, 68360 Soultz Haut Rhin, France

UK : Sharp Business Systems UK PLC

Northern House, Moor Knoll Lane, East Ardsley, Wakefield, WF3 2EE, United Kingdom

Telephone : +49 40 2376-0

E-mail address of person : compliance@sharp.eu  
responsible for the SDS

**1.4 Emergency telephone number**

+49 40 2376-2525 (from 9:00 to 17:00 CET/CEST, English, German Only)

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**SECTION 2: Hazards identification**

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**2.1 Classification of the substance or mixture**

**Classification (REGULATION (EC) No 1272/2008)**

Not Classified as hazardous

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms : None

Signal word : None

Hazard statements : None

Precautionary statements : None

**2.3 Other hazards**

Potential dust explosion hazard.

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**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Components**

Chemical Name	CAS-No.	EC-No.	Classification (REGULATION (EC) No1272/2008)	Concentration (%)
Ceramic material and wares, chemicals	66402-68-4	266-340-9	Not classified	90-99
Polyester resin	Confidential	Confidential	Not classified	1-10
Silicon resin	Confidential	Confidential	Not classified	1-5
Carbon black	1333-86-4	215-609-9	Not classified	0,1-1

For explanation of abbreviations see section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- If inhaled : If inhaled, remove to fresh air.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.  
Get medical attention.
- In case of skin contact : Get medical attention if irritation develops and persists.  
Wash clothing before reuse.
- In case of eye contact : If in eyes, rinse well with water.  
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, Get medical attention.  
Rinse mouth thoroughly with water.

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

- Risks : Dust contact with the eyes can lead to mechanical irritation.

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

- Treatment : Treat symptomatically and supportively.

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**SECTION 5: Firefighting measures**

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**5.1 Extinguishing media**

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media : High volume water jet

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.  
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters**

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local  
circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.

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**SECTION 6: Accidental release measures**

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**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.  
Follow safe handling advice and personal protective  
equipment recommendations.

**6.2 Environmental precautions**

Environmental precautions : Discharge into the environment must be avoided.  
Prevent further leakage or spillage if it is safe to do so.  
Retain and dispose of contaminated water.  
Local authorities should be advised if significant spillages  
cannot be contained.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable  
container for disposal.  
Avoid dispersal of dust in the air (i.e., clearing dust surfaces  
with compressed air).  
Dust deposits should not be allowed to accumulate on

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surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases.

You will need to determine which regulations are applicable.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- |                         |                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical measures      | : Static electricity may accumulate and ignite suspended dust causing an explosion.<br>Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.                                                                                                                                                                  |
| Advice on safe handling | : Do not breathe dust. Do not swallow. Avoid contact with eyes.<br>Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed.<br>Minimize dust generation and accumulation.<br>Keep away from heat and sources of ignition.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Hygiene measures        | : When using do not eat, drink or smoke.<br>Wash contaminated clothing before re-use.                                                                                                                                                                                                                                                                 |

### 7.2 Conditions for safe storage, including any incompatibilities

- |                                               |                                                                                                                                      |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Requirements for storage areas and containers | : Keep tightly closed. Keep in a cool, well-ventilated place.<br>Be stored in accordance with the particular national regulations.   |
| Advice on common storage                      | : Do not be stored together with the following product types:<br>Strong oxidizing agents<br>Organic peroxides<br>Explosives<br>Gases |

### 7.3 Specific end use(s)

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|-----------------|---------------------|
| Specific use(s) | : No data available |
|-----------------|---------------------|

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Carbon black	1333-86-4	TWA	3.5 mg/m <sup>3</sup>	GB EH40
		STEL	7 mg/m <sup>3</sup>	GB EH40

#### 8.2 Exposure controls

##### Engineering measures

Minimize workplace exposure concentrations.

Apply measures to prevent dust explosions.

##### Personal protective equipment

Eye protection	: Not required under intended use
Hand protection	: Not required under intended use
Skin and body protection	: Not required under intended use
Respiratory protection	: Not required under intended use
Thermal hazards	: Not required under intended use

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state	: Powder
Colour	: Black
Odour	: Odourless
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: Not applicable
Initial boiling point and boiling range	: No data available
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Particle characteristics	: 30~100 $\mu$ m
Density	: ca. 5,0 g/cm <sup>3</sup>
Bulk density	: ca. 2,0 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: Negligible

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Partition coefficient: noctanol/water : Not applicable  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity : Not applicable  
Explosive properties : Not explosive  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not classified as a reactivity hazard.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Dust can form an explosive mixture in the air.  
Can react with strong oxidizing agents.

### 10.4 Conditions to avoid

Conditions to avoid : None known.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure : Inhalation  
Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

Acute oral toxicity : LD50 : > 2000 mg/kg  
Acute inhalation toxicity : No data available

#### Skin corrosion/irritation

No skin irritation

#### Serious eye damage/eye irritation

No eye irritation

#### Respiratory or skin sensitisation

No sensitization

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**Germ cell mutagenicity**

AMES : negative

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Aspiration hazard**

Not relevant

**11.2 Information on other hazards**

No data available

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**SECTION 12: Ecological information**

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**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

Not relevant

**12.6 Endocrine disrupting properties**

No data available

**12.7 Other adverse effects**

No data available

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**SECTION 13: Disposal considerations**

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**13.1 Waste treatment methods**

Product : Dispose of it in accordance with local regulations.  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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Contaminated packaging : Dispose of it as an unused product.  
 Empty containers should be taken to an approved waste handling site for recycling or disposal.

### SECTION 14: Transport information

14.1 UN number or ID number : None  
 14.2 UN proper shipping name : None  
 14.3 Transport hazard class(es) : None  
 14.4 Packing group : None  
 14.5 Environmental hazards : None  
 14.6 Special precautions for user : Not applicable  
 14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

### SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable  
 REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable  
 Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable  
 Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

#### Full text of other abbreviations

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
 GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)  
 GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

#### Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling,



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use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.