ALTEC
INDUSTRIAL IDENTIFICATION

Technical datasheet

AR-01

INK RIBBON

Description

The AR-01 ribbon has no substitute - it is the toughest resin ribbon on the market. AR-01 is the only resin ribbon capable of handling extreme environmental labeling with our unmatched scratch and solvent resistance. Designed with our standard anti-static and backcoat properties to protect the printhead, AR-01 has unbeatable edge definition for crisp, extremely durable, and dense harsh environmental bar codes.

Physical data

Ribbon properties

Description	Result	Test method
Ink	Resin	
Color	Black	Visual
Total thickness	7.5 ± 0.5µ	Micrometer
Base film thickness	4.8 ± 0.3µ	Micrometer
Ink thickness	2.7 ± 0.2µ	Micrometer
Ink melting point	109°C (228°F)	Differential scanninc calorimeter

Label stock Top-coated polyester **Print speed** 6 IPS

Description	Result	Test method
Print density	> 1.90	Densitometer
Smudge resistance	A*	Colorfastness Tester - 100 Cycles @ 500 Grams with Cotton Cloth
Scratch resistance	A*	Colorfastness Tester - 50 Cycles @ 200 Grams with Stainless steel pointed tip

*American National Standard Institute (ANSI) Grade Levels A, B, C, D, and F, where A is excellent, B is above average, C is average, D is below average, and F is poor.

Recommended substrates

Top-coated vinyl, polyimide, polyesters, PVC cards, PET cards

Performance characteristics

- Toughest resin ribbon on the market
- Unmatched in abrasion and solvent resistance
- UL recognized & CSA approved
- High density printing ensuring edge definition
- Anti-static for easy handling and extended printhead life
- Specially formulated backcoating for printhead protection

ALTEC industrial identification nv
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B-1804 Cargovil-Eppegem

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Material safety data

According to 1907/2006/EC - Article 31

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

1.1 Product identifier
Trade name: Thermal Transfer Ribbon - Black
Article type: Resin
1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
Application of the substance / the mixture Printing of labels
1.3 Details of the supplier of the safety data sheet
ALTEC industrial identification B.V.
E-mail: info@altec.nl
T. 078-6152033
Nieuwland Parc 90
3351 LJ Papendrecht
The Netherlands
Further information obtainable from: See Section 16

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
The product is not classified according to the CLP regulation.
2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 Void
Hazard pictograms Void
Signal word Void
Hazard statements Void
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterization: Mixtures
Description: Mixture of substances listed below.
Non-hazardous components:

CAS: 1333-86-4	Carbon black	18.0 - 26.0%
EINECS: 215-609-9		
	Wax (trade secret)	12.0 - 32.0 %
	Synthetic resin (trade secret)	35.0 - 62.0 %

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If symptoms persist consult doctor.
4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Special hazards arising from the substance or mixture No further relevant information available.
5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Not required.
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up: Pick up mechanically.
6.4 Reference to other sections No dangerous substances are released.

SECTION 7: Handling and storage

7.1 Precautions for safe handling No special measures required.
Information about fire - and explosion protection:
Keep away from heat and flame.
Keep in a cool dry place; protect from sunlight.
Keep out of reach of children.
7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Keep in a cool dry place and protect from sunlight.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.
8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
1333-86-4 Carbon black
WEL Short-term value: 7 mg/m³
Long-term value: 3.5 mg/m³
Additional information: The lists valid during the making were used as basis.
8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Respiratory protection: Not required.
Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Not required.

SECTION 9: Exposure controls/personal protection

9.1 Information on basic physical and chemical properties

General Information	
Appearance:	
Form:	Solid material
Colour:	Black
Odour:	Characteristic
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Density:	Not determined.
Solubility in / Miscibility with	
water:	Insoluble.
Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity Based on available data, the classification criteria are not met.
Primary irritant effect:
Skin corrosion/irritation Based on available data, the classification criteria are not met.
Serious eye damage/irritation Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
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.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation Smaller quantities can be disposed of with household waste.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable

SECTION 15: Regulatory information

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:
QHSE Department
DNP Imagingcomm Europe B.V.
Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative