



Material Safety Data Sheet

based on EC Directive 2001/58/EC

Koehler Thermal Papers

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

Product: Direct Thermal Paper
Trade Name: Koehler Thermal Paper
Company: Papierfabrik August Koehler AG*
Hauptstraße 2
D-77704 Oberkirch
Phone +49 (0) 7802 81-0
Telefax +49 (0) 7802 81-4330
Information / Emergency: Phone +49 (0) 7802 81-4563 (during normal office hours)
Telefax +49 (0) 7802 81-5563

* The Company August Koehler AG is a member of the ETPA-Organization (European Thermal Paper Association).

2. COMPOSITION / INFORMATION ON INGREDIENTS

Composition: Conventional base paper with coatings

- (1) on the back-side surface: containing binders like latex type and / or hydrocolloidal binders, containing anorganic pigments like clay, chalk and silicate, and / or
- (2) on the front-side surface: containing anorganic pigments like clay, chalk and silicate together with latex type and/or hydrocolloidal binders organic colour-former and developer, waxes,
- (3) containing (1) and (2) or (2).

3. HAZARDS IDENTIFICATION

- Hazard Symbols: none
- Classification: none
- Particular information pertaining specific risk for human / environment:
Koehler thermal papers are not classified as dangerous products in accordance with the Directive 1999/45/EC

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4. FIRST-AID MEASURES

- General instructions: Koehler thermal papers are very similar to conventional papers, hence follows the same first-aid measures.
- After inhalation: Not applicable.
- After skin contact: No dangerous or harmful effect known.
- After eye contact: No dangerous or harmful effect known.
- After ingestion: No dangerous or harmful effect known.

5. FIRE-FIGHTING MEASURES

- Extinguishing agents: All known extinguishing agents as water, foam, carbon-dioxide or powder are usable.
- Special dangers: Not known.

6. ACCIDENTAL RELEASE MEASURES

Not applicable.

7. HANDLING AND STORAGE

- Handling/Storage: Storage conditions are equal to those for conventional papers, e.g. 18 to 23°C and 45 to 55% relative humidity.
- Fire fighting instructions: No special measures are necessary.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Technical protection measures: Not necessary.
- Personal protection: Not necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Paper in sheets and rolls.
- Odour: Very low odour.

10. STABILITY AND REACTIVITY

Koehler thermal papers are very similar to conventional papers. Contact with water, an excessive exposure to heat, humidity and day- or UV-light may impair the technical performance of the papers. There are no hazardous decomposition products or dangerous chemical reactions known.

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11. TOXICOLOGICAL INFORMATION

- Acute toxicity: Not toxic.
- Primar irritation to skin: Not irritant.
- Sensitisation: Not sensitising.

12. ECOLOGICAL INFORMATION

Koehler thermal papers are known as „not environmental dangerous“. By disposing these papers on normal household waste dumps they do not cause damage to the environment (according to DIN 38414 B).

13. DISPOSAL CONSIDERATIONS

Koehler thermal papers can be disposed as normal papers, that means they can be incinerated, recycled or sent to a household waste dump.

14. TRANSPORT INFORMATION

Koehler thermal papers are not classified as dangerous according to transport regulations.

15. REGULATORY INFORMATION

Classification / Labelling according to EC-Directives:

Koehler thermal papers do not cause health hazards nor do they cause environmental damage. Hence no Classification / Labelling according to national law or EC-Directives are necessary.

16. OTHER INFORMATION

The aforesaid remarks correspond to our present knowledge and experiences, they do not form a binding legal basis.

Further information on the safety of Koehler thermal papers may be obtained from the department Research and Development.



MATERIAL SAFETY DATA SHEET

Date of issue: September 26, 2000

revised: 11/04

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1. Substance and Company

Product: Thermosensitive Paper

Trade Name: Thermoscript

Supplier: Mitsubishi HiTec Paper Flensburg GmbH
Husumer Str. 12
24941 Flensburg

Emergency Contact: Tel.: 0461-8695-328 Fax: 0461-8695-353

2. Composition/Information on Ingredients

2.1 A conventional base paper coated with colour developing thermosensitive formulation.

2.2 Main components	Content %
1. Cellulose	> 60
2. Calcined clay	> 5
3. Calcium carbonate	< 12
4. Colour former	< 2
5. Colour developer	< 2
6. Accelerator	< 2
7. Binder	< 2

3. Hazards Identification

Hazard warning not required.

4. First Aid

Inhalation: Not applicable
Skin contact: Not applicable
Eye contact: Not applicable
Ingestion: Not applicable

5. Fire and Explosion Hazard

The product will burn when ignited and incinerates in the same way as other papers.
Any conventional extinguishing medium can be used.

6. Accidental Release Measures

Not required.

7. Handling and Storage

7.1 The product may be handled as other office papers.

7.2 Optimum storage temperatures below 25°C.

8. Exposure Controls/Personal Protection

Not required.

9. Physical and Chemical Properties

Boiling point not applicable
Solidifying/Melting point not applicable
Density approx. 900 kg/m³
Rel. vap. den. (air = 1) not applicable

Based on the principles of 91/155/EEC

* Member of the product safety group of the ETPA (European Thermal Paper Association)

(gb) NNE

MATERIAL SAFETY DATA SHEET

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Flash point	480°
Auto-ignition temperature	not applicable
Explosive limits in air	not applicable
Vapour pressure	not applicable
pH in concentrate	not applicable
Rel. evaporation rate	not applicable
Solubility in organic solvents	5 % (Ethanol/Aceton)
Solubility in water	not applicable
10. Stability and Reactivity Thermal decomposition: No thermal decomposition when stored and handled correctly.	
11. Toxicological Information Acute oral toxicity (LD ₅₀): above 2000 mg/kg * Skin irritation: non-irritant * Eye irritation: non irritant * * Toxicological studies of independent institutes.	
12. Ecological Information Biological elimination: Fish toxicity: LC ₀ : Water pollution class:	
13. Disposal Considerations Thermoscript can be recycled, disposed of in incineration plants or landfills if local official regulations are observed.	
14. Transport Information GGVSee/IMDG-Code: -- UN-No.: -- MFAG: -- EmS: -- PG: -- MPO: -- GGVE/GGVS: Class -- No. -- RID/ADR: Class -- No. -- Warning sign: Hazard no. 000 Substance no. 0000 ADNR: Class -- No. -- Cat. -- ICAO/IATA-DGR: not restr. Declaration for land shipment: -- Declaration for sea shipment: -- Declaration for shipment by air: -- Other information: Not dangerous cargo. Keep separated from foodstuffs.	
15. Regulatory Information No labelling is required in accordance with the EEC directives. Not subject to the German Regulation on Flammable Liquids (VbF).	
16. Other Information In connection with the product there are no known environmental hazards.	

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products properties.

Based on the principles of 91/155/EEC

(gb) NNE

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October 14, 2009

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RE: MSDS SHEETS – ARTICLE STATEMENT

Dear Customer:

All surface coated paper and film products manufactured by Kanzaki Specialty Papers, which include direct thermal, thermal transfer and ink jet media, are by definition, as described in OSHA regulation 29 CFR 1910.1200, considered to be articles rather than chemicals. As a result of this classification, a Material Safety Data Sheet (MSDS) is not required or applicable. The article definition states that the materials are essentially non-toxic and will pose no physical hazard or health risk.

The following is the article definition:

"Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts, of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Also attached is an extended excerpt of the regulation including the "article exemption" for Material Safety Data Sheets.

If you have any further questions regarding the safety of Kanzaki products, please do not hesitate to contact me at 1-413-967-8875.

Sincerely,

Craig Nieske

Craig Nieske
Technical Service Manager

1910.1200 Hazard Communication.

(a) "Purpose."

(1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

(2) This occupational safety and health standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legal requirements of a state, or political subdivision of a state, pertaining to this subject. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce, through any court or agency, any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

(b) "Scope and application."

(1) This section requires chemical manufacturers or importers to assess the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers. Appendix E of this section is a general guide for such employers to help them determine their compliance obligations under the rule.)

(2) This section applies to any chemical, which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use, or in a foreseeable emergency.

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(6) This section does not apply to:

(i) Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;

(ii) Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability ACT (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with the Environmental Protection Agency regulations.

(iii) Tobacco or tobacco products;

(iv) Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);

(v) Articles (as that term is defined in paragraph (c) of this section);

(vi) Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;

(vii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);

(viii) Cosmetics, which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

(ix) Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

(x) Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

(xi) Ionizing and nonionizing radiation; and,

(xii) Biological hazards.

(c) "Definitions."

"Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.