



SAFETY DATA SHEET

Solvent 1605 for Special Opaque Inks

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

PRODUCT NAME: Solvent 1605 for Special Opaque Inks

PART No.: 1605

APPLICATIONS: Solvent for Linx® 6800 Spectrum CIJ printers

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2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	EINECS No.	CAS No.	CONTENTS	SYMBOL	RISK (R No.)
BUTANONE	201-159-0	78-93-3	60-100 %	F, Xi	11, 36, 66, 67
ETHANOL	200-578-6	64-17-5	10-30 %	F	11

The full text for all R-phrases are shown in section 16.

COMPOSITION COMMENTS: A blend of one or more solvents and, optionally, colourants and additives.

3 HAZARDS IDENTIFICATION

Highly flammable.
Irritating to eyes.
Repeated exposure may cause skin dryness or cracking.
Vapours may cause drowsiness and dizziness.

4 FIRST AID MEASURES

GENERAL: Get medical attention if any discomfort continues. Do not give victim anything to drink if he is unconscious.

INHALATION: Move the exposed person to fresh air at once. If breathing stops, provide artificial respiration. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION: DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Provide rest, warmth and fresh air. Get medical attention immediately!

SKIN: Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

EYES: Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention.

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Fire can be extinguished using: Alcohol resistant foam. Carbon dioxide (CO₂). Water spray, fog or mist. Powder.

SPECIAL FIRE FIGHTING PROCEDURES: Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. Containers close to fire should be removed

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or cooled with water.

UNUSUAL FIRE & EXPLOSION HAZARDS:

HIGHLY FLAMMABLE! Vapours may form explosive mixture with air at room temperature. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP METHODS:

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Clean-up personnel should use respiratory and/or liquid contact protection. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS:

Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Risk of vapour concentration on the floor and in low lying areas. Contaminated rags and cloths must be put in fire proof containers for disposal.

STORAGE PRECAUTIONS:

Flammable/combustible - Keep away from oxidizers, heat and flames. Keep in cool, dry, ventilated storage and closed containers. May attack some plastics, rubber and coatings.

STORAGE CRITERIA:

Flammable liquid storage.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT NAME

CAS No

STD

LT EXP

ST EXP

BUTANONE

78-93-3

OES

200 ppm(Sk)

300 ppm(Sk)

ETHANOL

64-17-5

OES

1000 ppm

No std.

INGREDIENT COMMENTS:

OES = Occupational Exposure Standard.

PROTECTIVE EQUIPMENT:



VENTILATION:

Provide adequate general and local exhaust ventilation.

RESPIRATORS:

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL).

PROTECTIVE GLOVES:

Protective gloves must be used if there is a risk of direct contact or splash. Use protective gloves made of: Impermeable material.

EYE PROTECTION:

Wear approved safety goggles.

OTHER PROTECTION:

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENIC WORK ROUTINES:

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. No eating or drinking while working with this material.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Mobile. Liquid.

COLOUR:

Colourless.

ODOUR/TASTE:

Characteristic. Ketonic.

PHYSICAL DATA COMMENTS:

Information given concerns the major ingredient (butanone).

SOLUBILITY DESCRIPTION:

Appreciably soluble in water.

BOILING POINT (°C):

ca.80 @ 760mmHg

MELTING POINT (°C):

ca.-86

SPECIFIC GRAVITY (Water=1):

0.85 - 0.90 @ 20 °C

VAPOUR DENSITY (air=1):

ca.2.4

VAPOUR PRESSURE:

ca.78mmHg @ 20 °C

VOLATILITY DESCRIPTION:

Highly volatile.

EVAPORATION RATE:

>BuAc(BuAc=1)

pH-VALUE, CONC:

N/A

VISCOSITY:

0.3 - 1.0 mPas @ 25 °C

FLASH POINT (°C):

ca.-6

FLASH POINT METHOD:

CC (Closed cup).

AUTO IGNITION TEMPERATURE (°C):

ca.515

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FLAMMABILITY LIMIT (lower %): ca. 1.8 (%v/v)

FLAMMABILITY LIMIT (upper %): ca. 11.5 (%v/v)

10 STABILITY AND REACTIVITY

STABILITY: No particular stability concerns.

CONDITIONS TO AVOID: Avoid heat. Avoid contact with oxidisers or reducing agents. Avoid contact with acids and alkalis.

HAZARDOUS POLYMERIZATION: Will not polymerize.

HAZARDOUS DECOMPOSITION PRODUCTS:

Fire creates: Asphyxiating gases/vapours/fumes of: Carbon dioxide (CO₂). Carbon monoxide (CO). Nitrous gases (NO_x).

11 TOXICOLOGICAL INFORMATION

INHALATION: High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. Drowsiness, dizziness, disorientation, vertigo.

INGESTION: Liquid irritates mucous membranes and may cause abdominal pain if swallowed. Nausea, vomiting. Diarrhoea.

SKIN: Product has a defatting effect on skin.

EYES: May cause severe irritation to eyes. Vapour or spray may cause temporary (reversible) eye damage.

12 ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: Not regarded as dangerous for the environment (EC Directive 1999/45/EC).

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Dispose of in accordance with Local Authority requirements. Absorb in vermiculite or dry sand, dispose in licensed special waste. Make sure containers are empty before discarding (explosion risk).

14 TRANSPORT INFORMATION

LABEL FOR CONVEYANCE:



ROAD:

UN No: 1210

HAZARD CLASS (ADR): Class 3: Flammable liquids.

ADR LABEL No: 3

PROPER SHIPPING NAME I: PRINTING INK RELATED MATERIALS

ADR CLASS No: 3 - F1

HAZCHEM CODE: 3YE

RAIL:

RAIL TRANSPORT CLASS No: 3

SEA:

UN SEA: 1210

SEA PACK GR: II

MARINE POLLUTANT: No.

SEA TRANSPORT CLASS No: 3

EmS No.: 3-05

AIR:

UN AIR: 1210

AIR PACK GR: II

AIR TRANSPORT CLASS No: 3

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15 REGULATORY INFORMATION

LABEL FOR SUPPLY:



HIGHLY FLAMMABLE



IRRITANT

RISK PHRASES:	R-11	Highly flammable.
	R-36	Irritating to eyes.
	R-66	Repeated exposure may cause skin dryness or cracking.
	R-67	Vapours may cause drowsiness and dizziness.
SAFETY PHRASES:	S-16	Keep away from sources of ignition - No Smoking.
	S-25	Avoid contact with eyes.
	S-26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S-37	Wear suitable gloves.
	S-51	Use only in well ventilated areas.
	S-60	This material and its container must be disposed of as hazardous waste.
	S-9	Keep container in a well ventilated place.
UK REGULATORY REFERENCES:	The Control of Substances Hazardous to Health (COSHH) Regulations 1999 (S.I. 1999 No 437).	
	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP 3) (S.I. 2002 No 1689)	
EC DIRECTIVES:	The Dangerous Substances Directive (67/548/EEC) and subsequent Adaptations to Technical Progress.	
	The Dangerous Preparations Directive (1999/45/EC) and subsequent Adaptations to Technical Progress.	
	The System of specific information relating to Dangerous Preparations (Safety Data Sheets Directive (91/155/EEC)) and subsequent amendments.	
APPROVED CODE OF PRACTICE:	The Approved Classification and Labelling Guide (ACLG) (5th Edition).	
	The Approved Code of Practice on Safety Data Sheets (3rd Edition).	
GUIDANCE NOTES:	Occupational Exposure Limits EH40.	
	Introduction to Local Exhaust Ventilation HS(G)37.	
	CHIP for everyone HSG(108).	

16 OTHER INFORMATION

INFORMATION SOURCES:	Dangerous Properties of Industrial Materials Report, N.Sax et.al. Croner's: Dangerous Substances. Material Safety Data Sheet, Misc. manufacturers.	
REVISION COMMENTS:	Revised in compliance with CHIP 3 (2002).	
ISSUED BY:	Paul Doody	
REVISION DATE:	v2; 30/07/2002	
REVISION No. /REPLACES SDS ISSUED:	v1; 20/06/2002	
SDS No.:	MP80051	
R-PHRASES (Full Text):	R-11	Highly flammable.
	R-36	Irritating to eyes.
	R-66	Repeated exposure may cause skin dryness or cracking.
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SAFETY DATA SHEET STATUS:	Approved.	



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DISCLAIMER

The information contained in this safety data sheet relates only to the specific material designated, and it may not be valid if the material is used in combination with any other materials. Such information is, to the best of Linx's knowledge and belief, accurate and reliable and is based on the present state of knowledge and current legislation as of the date indicated. However, no warranty, guarantee, or representation is made as to its accuracy, reliability, or completeness. This safety data sheet provides guidance on health, safety, and environmental aspects of the product and should not be construed as any guarantee of technical performance, or suitability for particular applications. As the specific conditions of use of the product are outside of Linx's control, it remains the sole responsibility of the end-user to satisfy themselves as to the suitability of such information for their own particular use and to ensure that the requirements of any relevant legislation are complied with.