

TITLE: GERBER SOLARA Ink Jet Printing Inks: Black (P76809D), Yellow (P76808D), and Cyan (P76806D)

Category: MSDS/Materials

Supplied by: Technical Communications

Last Modified: 2/28/05

Summary: Material Safety Data Sheet for GERBER SOLARA Inks Black (P76809D), Yellow (P76808D), and Cyan (P76806A).

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1. Article and Corporate Identification

1.1 Identification of Product: GERBER SOLARA Ink jet printing ink: Black (P76809D), Yellow (P76808D), and Cyan (P76806A).

- Range: UVIJET GK - GK00A
- Product Code(s): Black (GK004), Yellow (GK052), and Cyan (GK215)

1.2 Company undertaking identification:

Company name: Gerber Scientific Products Inc.
83 Gerber Road
South Windsor, CT 06074 USA

Phone: 860-643-1515

Fax: 860-648-8064

Contact person: Sales Support

2. Composition/Data on components

2.1 Chemical characterization:

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
	Proprietary multifunctional acrylate Xi; R 36/37/38	10-25%
CAS: 2499-59-4 EINECS: 219-696-4	2-Propenoic Acid, Octyl Ester Xi, N; R 36/37/38-51/53	5-10%
CAS: 2156-96-9 EINECS: 218-462-9	decyl acrylate Xi, N; R 36/37/38-51/53	5-10%
CAS: 75980-60-8 EINECS: 278-335-8	Phosphine Oxide, Diphenyl (2,4,6-tri-Methylbenzoyl)- Xn; R 62-52/53	5-10%
CAS: 119-61-9 EINECS: 204-337-6	Benzophenone Xi, N; R 36/37/38-50/53	1-5%

Additional information:

For the wording of the listed risk phrases refer to section 16.

3. Hazards identification

3.1 Hazard description:

Xn Harmful

3.2 Information pertaining to particular dangers for man and environment:

R 36/37/38	Irritating to eyes, respiratory system and skin.
R 62	Possible risk of impaired fertility.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3.3 Classification system:

The classification was made according to the latest editions of the EU-lists, and expanded by company and literature data.

4. First aid measures

4.1 General information:

Never make an unconscious person vomit or drink fluids. Immediately remove any clothing soiled by the product.

4.2 Inhalation:

Supply fresh air; consult doctor in case of complaints.

4.3 Skin contact

Immediately wash with soap and water and rinse thoroughly. If skin irritation continues, consult a doctor.

4.4 Eye contact:

Rinse open eye for several minutes under running water. Then consult a doctor.

4.5 Ingestion:

Give subject copious amounts of water to drink and provide fresh air. Call a doctor immediately.

5. Fire fighting measures

5.1 Extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 For safety reasons unsuitable extinguishing agents:

Water with full jet.

5.3 Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.4 Protective equipment:

Wear self-contained breathing apparatus.

5.5 Additional information:

Cool endangered containers with water spray. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. Accidental release measures

6.1 Person-related safety precautions:

Refer to the protective measures stated in Sections 7 and 8. Keep unprotected personnel away. Ensure adequate ventilation

6.2 Measures for environmental protection:

Do not allow product to reach sewage system or any water course. Inform respective authorities if seepage into water course or sewage system occurs. Do not allow to enter sewers, surface or ground water.

6.3 Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomaceous earth, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to section 13.

7. Handling and storage

7.1 Handling:

Store in cool, dry place in tightly sealed containers. Keep away from heat and direct sunlight. Ensure good ventilation and extraction at the workplace.

7.2 Storage:

Store in accordance with current state and local regulations.

7.3 Requirements to be met by storerooms and containers:

Store between 5 - 30°C (41 - 86°F)

7.4 Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials. Do not store together with alkalis (caustic solutions).

7.5 Further information about storage conditions:

Protect from heat and direct sunlight.

8. Exposure controls and personal protection

8.1 Additional information about design of technical systems:

No further data; see item 7.

8.2 Components with limit values that require monitoring at the workplace:

The instructions and information provided by the manufacturer of the personal protective equipment on use, storage, maintenance and replacement must always be followed.

8.3 General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Store protective clothing separately.

8.4 Breathing equipment:

Not necessary if room is well-ventilated.

8.5 Protection of hands:

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The selection of single or multi-use gloves is dependent upon the level of exposure (nitrile/neoprene gloves will last longer than latex/rubber). The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Always ensure that gloves are free from defects and that they are stored and used correctly. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Use of the following recommended:

Single use disposable nitrile gloves (short duration exposure of few minutes or where only splashes likely). Not to be reused when removed. Minimum 0.4mm thick neoprene or nitrile gloves (longer duration exposure or mechanical handling activities). To be replaced immediately when punctured or degraded.

Heavy duty unlined neoprene gloves (when using solvents). To be replaced immediately when punctured or degraded.

8.6 Penetration time of glove material:

The exact break through time has to be obtained from the manufacturer of the protective gloves and must be observed.

8.7 Eye protection:

Safety glasses

8.8 Body protection:

Protective work clothing; disposable overalls are preferable.

Acrylates, like any other organic solvent, are skin and/or eye irritants. Since acrylates do not evaporate, they will remain on the skin or clothes for extended periods. This long term exposure, caused by the non-volatility, can give rise to dermatitis. It is essential that the measures given above are always followed.

8.9 COSHH Essentials for Printers Control Guidance Sheet:

P113 Narrow-format ink-jet printing

P212 Wide-format ink-jet printing

P214 Control of ozone at ultraviolet lamps

S100 General advice

S101 Selection of personal protective equipment

Also see Section 16 'Other information'.

9. Physical and chemical properties

9.1 General Information:

Form:	Liquid
Color:	According to product specification
Odor:	Characteristic
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	100°C (212°F)
Flash point:	Not applicable
Self igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Density at 20°C:	1.030 g/cm ³
Water:	Not miscible or difficult to mix

Solvent content: Organic solvents:	0.0 %
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10. Stability and reactivity

10.1 Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.2 Stable until: 50°C (122° F)

11. Toxicological information

11.1 Acute toxicity:

LD/LC50 values that are relevant for classification:

75980-60-8 Phosphine Oxide, Diphenyl (2,4,6-tri-Methylbenzoyl) - Oral LD50 > 2000 mg/kg (rat)

11.2 Primary irritant effect:

Irritant to skin and mucous membranes.

Irritating effect on eyes.

12. Ecological information

12.1 Ecotoxicological effects:

Aquatic toxicity:

75980-60-8 Phosphine Oxide, Diphenyl (2,4,6-tri-Methylbenzoyl) -

EC50	> 500 mg/dm ³ (Bacteria)
EC50/48 h	10 - 100 mg/l (Daphnae)
EC50/72 h	10 - 100 mg/l (Algae)
LC50/96 h	10 - 100 mg/l (Fish)

12.2 General notes:

There are no data on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified as dangerous for the environment. Also refer to Sections 2. Do not allow product to reach ground water, water course or sewage system.

13. Disposal considerations

13.1 Product:

Must not be disposed together with household rubbish. Do not allow product to reach sewage system.

13.2 European waste catalogue

08 03 12 waste ink containing dangerous substances

13.3 Waste Hazard Classification:

H4 - Irritant

H5 - Harmful

13.4 Recommendation:

Dispose of product according to official regulations. Also see Section 16 'Other Information'

14. Transport information

Land transport ADR/RID (cross-border) ADR/RID class: --
Maritime transport IMDG: IMDG Class: -- Marine pollutant: No
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class: --

14.1 Transport/Additional information:

Not dangerous according to the above specifications.

15. Regulations

15.1 Markings according to EU guidelines:

The product has been classified and marked in accordance with EU Directives on Hazardous Materials

Code letter and hazard designation of product:	Xn Harmful
Hazard-determining components of labeling:	Phosphine Oxide, Diphenyl (2,4,6-tri-Methylbenzoyl) -
Risk phrases:	36/37/38 Irritating to eyes, respiratory system and skin. 62 Possible risk of impaired fertility. 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases:	36/37 Wear suitable protective clothing and gloves.

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.

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16.1 Relevant R-phrases:

36/37/38	Irritating to eyes, respiratory system and skin.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
62	Possible risk of impaired fertility.

16.2 Recommended restriction of use:

The product should not be used for any purpose other than that specified in Section 1.