

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/07/2025

Version: 2.0

Reviewed on 08/01/2025

* 1 Identification

Product identifier**Product name:** IR2 Monomer Flush**CAS Number:**

34590-94-8

Other means of identification**Article number:** I-7101-L**EC number:**

252-104-2

Application of the substance / the mixture: Printing inks**Details of the supplier of the safety data sheet**

Direct Color Systems

99 Hammer Mill Rd.

Rocky Hill, CT 06067-USA

Manufacturer/Supplier:

Direct Color Systems

99 Hammer Mill Rd.

Rocky Hill, CT 06067-USA

Emergency telephone number US: 24/7 CHEMTREC 1-800-424-9300**Emergency telephone number International:** 24/7 CHEMTREC +1 703-527-3887

* 2 Hazard(s) identification

Classification of the substance or mixture

Flammable liquids 4 H227 Combustible liquid.

Label elements**GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms** Void**Signal word** Warning**Hazard statements**

Combustible liquid.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

In case of fire: Use CO₂, powder or water spray to extinguish.

Store in a well-ventilated place.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification according to (d)(1)(ii) of § 1910.1200

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

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3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

34590-94-8 Dipropylene glycol monomethyl ether

Identification number(s)

EC number: 252-104-2

Dangerous components:

34590-94-8 Dipropylene glycol monomethyl ether
Flammable liquids 4, H227

≥ 50 - ≤ 100%

4 First-aid measures

Description of first aid measures

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.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

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

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.

Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Precautions for safe handling No special precautions are necessary if used correctly.

Information about protection against explosions and fires: No special measures required.

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Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

34590-94-8 Dipropylene glycol monomethyl ether

PEL Long-term value: 600 mg/m³, 100 ppm

Skin

REL Short-term value: 900 mg/m³, 150 ppm

Long-term value: 600 mg/m³, 100 ppm

Skin

TLV Long-term value: 50 ppm

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Appropriate engineering controls No further data; see section 7.

Personal protective equipment:

General protective and hygienic measures: Wash hands before breaks and at the end of work.

Breathing equipment: 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.

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: Goggles recommended during refilling.

* 9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Physical state

Liquid

Color:

Colorless

Odor:

Ether-like

Odor threshold:

Not determined.

Melting point/Melting range:

-83 °C (-117.4 °F)

Boiling point/Boiling range:

190 °C (374 °F)

Flammability:

Not applicable.

Explosion limits:

Lower:

1.1 Vol %

Upper:

14 Vol %

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Flash point:	75 °C (167 °F)
Auto igniting:	270 °C (518 °F)
Decomposition temperature:	Not determined.
pH-value:	Not determined.
Viscosity:	
Kinematic:	Not determined.
Dynamic at 20 °C (68 °F):	4.55 mPas
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure at 20 °C (68 °F):	0.4 hPa (0.3 mm Hg)
Vapor pressure:	
Density at 20 °C (68 °F):	0.956 g/cm ³ (7.97782 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Particle characteristics	Not applicable.

Other information

Appearance:

Form: Liquid

Important information on protection of health and environment, and on safety.

Ignition temperature: Not determined.

Danger of explosion: Not determined.

Solids content: 0.0 %

Change in condition

Evaporation rate Not determined.

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

* 11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

34590-94-8 Dipropylene glycol monomethyl ether

Oral LD50 5,135 mg/kg (rat)

Dermal LD50 > 19,000 mg/kg (rab)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Interactive effects No interactive effects between components are known.

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Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects

Additional ecological information:

General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Waste treatment methods

Recommendation:

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

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

*14 Transport information

UN-Number

DOT

NA1993

IMDG, IATA

not regulated

UN proper shipping name

DOT

COMBUSTIBLE LIQUID, N.O.S (Dipropylene glycol monomethyl ether)

IMDG, IATA

not regulated

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Transport hazard class(es)

DOT



Class	Comb liq
Label	-
ADN/R Class:	not regulated
Packing group	
DOT	III
IMDG, IATA	not regulated
Environmental hazards:	Not applicable.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

Transport/Additional information:

DOT

Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
Special precautions for user	Not applicable.
UN "Model Regulation":	not regulated

*15 Regulatory information

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

No further relevant information available.

SARA

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

: ACTIVE

Hazardous Air Pollutants

Substance is not listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value)

Substance is not listed.

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NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms Void

Signal word Warning

Hazard statements

Combustible liquid.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

In case of fire: Use CO₂, powder or water spray to extinguish.

Store in a well-ventilated place.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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.

Relevant phrases

H227 Combustible liquid.

Date of previous version 11/26/2024

Version number of previous version: 1.0

Date of preparation 08/07/2025

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable liquids 4: Flammable liquids – Category 4

*** Data compared to the previous version altered.**