

SAFETY DATA SHEET

Published DateRevision DateRevision NumberNov-28-2023Nov-28-20232.7

1. IDENTIFICATION

Product identifier

Product code 8819
Product name Fire Red

Product category 8800 Series SV Screen Ink

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use
Recommended use Industrial Printing Operations

Details of the supplier of the safety data sheet

UNITED STATES
UNITED KINGDOM
Nazdar Company
Nazdar Limited
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Emergency telephone number

USA: Chemtrec: +001-800-424-9300

Outside USA: Chemtrec: +001-703-527-3887

24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 1 - (H318)
Carcinogenicity	Category 2 - (H351)
Aspiration hazard	Category 1 - (H304)
Chronic aquatic toxicity	Category 2 - (H411)
Flammable liquids	Category 3 - (H226)

Label elements



Signal word Danger

Hazard statements

H226 - Flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H318 - Causes serious eye damage

H351 - Suspected of causing cancer

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

P403 + P235 - Store in a well-ventilated place. Keep cool

Hazards not otherwise classified (HNOC)

Causes mild skin irritation. Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%	Trade	Note
			secret	
Solvent naphtha, petroleum, heavy aromatic	64742-94-5	30 - 60	*	
Butyrolactone	96-48-0	10 - 30	*	
Naphthalene (constituent)	91-20-3	1 - 5	*	1
2-Butoxyethanol	111-76-2	1 - 5	*	
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	*	
1,2,4-Trimethylbenzene (constituent)	95-63-6	0.1 - < 1	*	1

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

Note

4. FIRST-AID MEASURES

Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Get medical attention if irritation develops and

persists.

Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Inhalation Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or

stopped, administer artificial respiration. Get medical attention immediately.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a

physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

^{1.} Hazardous Constituent contained in Complex Substance(s) required for disclosure

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and

clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people

away from and upwind of spill/leak.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

HandlingUse personal protective equipment as required. Do not eat, drink or smoke when using this

product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open

flames, hot surfaces and sources of ignition. Keep container closed when not in use. Keep

out of the reach of children.

Incompatible Products Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Chemical name	ACGIH TLV
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
1,2,4-Trimethylbenzene (constituent)	TWA: 10 ppm
95-63-6	

Chemical name	OSHA PEL

Naphthalene (constituent) 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³
2-Butoxyethanol	TWA: 50 ppm
111-76-2	TWA: 240 mg/m³
	Skin

Chemical name	OSHA PEL (vacated)
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m³
	STEL: 15 ppm
	STEL: 75 mg/m ³
2-Butoxyethanol	TWA: 25 ppm
111-76-2	TWA: 120 mg/m ³
	Skin

Chemical name	Ontario TWAEV
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Ethylene glycol monopropyl ether	TWA: 25 ppm
2807-30-9	TWA: 110 mg/m ³
	Skin

Chemical name	Mexico OEL (TWA)
Naphthalene (constituent)	TWA/VLE-PPT: 10 ppm
91-20-3	STEL/PPT-CT: 15 ppm
2-Butoxyethanol	TWA/VLE-PPT: 20 ppm
111-76-2	1

Appropriate engineering controls

Engineering Measures

Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear

suitable face shield. Ensure that eyewash stations and safety showers are close to the

workstation location.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as

appropriate, to prevent skin contact.

Hand Protection Chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time): eg. nitrile rubber (0.4 mm), chloroprene

rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers. Taking into account the varying conditions, the practical usage of a

chemical-protective glove in practice may be much shorter than the permeation time

determined through testing.

Due to different glove types, the manufacturer's directions for use should be observed.

Replace gloves immediately when torn or any change in appearance is noticed such as

dimension, color, flexibility.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of

the material.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid Colored **Appearance** Odor Characteristic **Odor Threshold** No information available

Property <u>Values</u> Remarks • Method

No data available pН

No information available No data available **Melting Point / Freezing Point Boiling Point / Boiling Range** > 149 °C / 300 °F

49 °C / 120 °F Pensky Martens Closed Cup (PMCC) Flash Point

No data available **Evaporation rate**

Flammability Limit in Air

Upper flammability limit No data available Lower flammability limit No data available

Vapor Pressure No data available **Vapor Density** No data available

Specific Gravity 1.06

Water Solubility No data available Solubility in other solvents No data available Partition coefficient: n-octanol/water No data available **Autoignition Temperature** No information available No data available

Hyphen No data available Kinematic viscosity No data available

No data available **Dynamic viscosity**

Explosive Properties No data available **Oxidizing Properties** No data available

Other information

Photochemically Reactive Yes Weight Per Gallon (lbs/gal) 8.81

VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter
(less water)	(less water)	(less water)	(less water)
63.33	64.84	5.59	669.34

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

InhalationSpecific test data for the substance or mixture is not available.Eye ContactSpecific test data for the substance or mixture is not available.Skin ContactSpecific test data for the substance or mixture is not available.IngestionSpecific test data for the substance or mixture is not available.

Chemical name	Oral LD50
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	> 5000 mg/kg (Rat)
Butyrolactone 96-48-0	= 1540 mg/kg (Rat)
Naphthalene (constituent) 91-20-3	= 1110 mg/kg (Rat)
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)
Ethylene glycol monopropyl ether 2807-30-9	= 3089 mg/kg (Rat)
1,2,4-Trimethylbenzene (constituent) 95-63-6	= 3280 mg/kg (Rat)

Chemical name	Dermal LD50
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	> 2000 mg/kg (Rabbit)
Butyrolactone 96-48-0	> 5640 mg/kg (Rabbit)
Naphthalene (constituent) 91-20-3	= 1120 mg/kg (Rabbit)
2-Butoxyethanol 111-76-2	= 435 mg/kg (Rabbit)
Ethylene glycol monopropyl ether 2807-30-9	= 870 mg/kg (Rabbit)
1,2,4-Trimethylbenzene (constituent) 95-63-6	> 3160 mg/kg (Rabbit)

Chemical name	Inhalation LC50
Solvent naphtha, petroleum, heavy aromatic	> 590 mg/m³ (Rat) 4 h
64742-94-5	
1 ,	> 5100 mg/m³(Rat)4 h
96-48-0	
1 ' ' '	> 0.4 mg/L (Rat) 4 h
91-20-3	
2-Butoxyethanol	= 450 ppm (Rat) 4 h
111-76-2	= 486 ppm (Rat) 4 h
Ethylene glycol monopropyl ether	= 1530 ppm (Rat) 7 h
2807-30-9	
1,2,4-Trimethylbenzene (constituent)	= 18 g/m³ (Rat) 4 h
95-63-6	

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Specific test data for the substance or mixture is not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Specific test data for the substance or mixture is not available.

Eye damage/irritation Specific test data for the substance or mixture is not available. Causes serious eye damage.

(based on components).

IrritationSpecific test data for the substance or mixture is not available.CorrosivitySpecific test data for the substance or mixture is not available.SensitizationSpecific test data for the substance or mixture is not available.Mutagenic EffectsSpecific test data for the substance or mixture is not available.

Carcinogenic effects Specific test data for the substance or mixture is not available. Suspected of causing

cancer. (based on components).

Reproductive Effects
STOT - single exposure
STOT - repeated exposure
Chronic Toxicity
Specific test data for the substance or mixture is not available.
Specific test data for the substance or mixture is not available.
Specific test data for the substance or mixture is not available.
Specific test data for the substance or mixture is not available.

Aspiration hazard Specific test data for the substance or mixture is not available. May be fatal if swallowed and

enters airways. (based on components).

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH
Naphthalene (constituent)	A3
91-20-3	
2-Butoxyethanol	A3
111-76-2	

Chemical name	IARC
Naphthalene (constituent)	Group 2B
91-20-3	

Chemical name	NTP
Naphthalene (constituent)	Reasonably Anticipated
91-20-3	

Chemical name	OSHA
Naphthalene (constituent)	Χ
91-20-3	

Numerical measures of toxicity - Product Information

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

 ATEmix (oral)
 6,119.80 mg/kg

 ATEmix (dermal)
 61,523.30 mg/kg

 ATEmix (inhalation-gas)
 99,999.00

 ATEmix (inhalation-dust/mist)
 55.60 mg/l

 ATEmix (inhalation-vapor)
 407.60 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Specific test data for the substance or mixture is not available. Toxic to aquatic life with long lasting effects. (based on components).

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Algae/aquatic plants
96h EC50 Desmodesmus subspicatus: = 79 mg/L
72h EC50 Desmodesmus subspicatus: = 360 mg/L

Chemical name	Fish
Solvent naphtha, petroleum, heavy aromatic	96h LC50 Pimephales promelas: = 19 mg/L (static)
64742-94-5	96h LC50 Oncorhynchus mykiss: = 2.34 mg/L

Butyrolactone	96h LC50 Lepomis macrochirus: = 1740 mg/L (static) 96h LC50 Pimephales promelas: = 45 mg/L (flow-through) 96h LC50 Pimephales promelas: = 41 mg/L 96h LC50 Lepomis macrochirus: = 56 mg/L (static)
96-48-0	
Naphthalene (constituent) 91-20-3	96h LC50 Oncorhynchus mykiss: = 1.6 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 0.91 - 2.82 mg/L (static) 96h LC50 Pimephales promelas: = 1.99 mg/L (static) 96h LC50 Lepomis macrochirus: = 31.0265 mg/L (static) 96h LC50 Pimephales promelas: 5.74 - 6.44 mg/L (flow-through)
2-Butoxyethanol	96h LC50 Lepomis macrochirus: = 1490 mg/L (static)
111-76-2	96h LC50 Lepomis macrochirus: = 2950 mg/L
Ethylene glycol monopropyl ether 2807-30-9	96h LC50 Pimephales promelas: > 5000 mg/L (static)
1,2,4-Trimethylbenzene (constituent) 95-63-6	96h LC50 Pimephales promelas: 7.19 - 8.28 mg/L (flow-through)

Chemical name	Crustacea
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	48h EC50 Daphnia magna: = 0.95 mg/L
Butyrolactone 96-48-0	48h EC50 Daphnia magna Straus: > 500 mg/L
Naphthalene (constituent) 91-20-3	48h EC50 Daphnia magna: 1.09 - 3.4 mg/L Static 48h EC50 Daphnia magna: = 1.96 mg/L Flow through 48h LC50 Daphnia magna: = 2.16 mg/L
2-Butoxyethanol 111-76-2	48h EC50 Daphnia magna: > 1000 mg/L
1,2,4-Trimethylbenzene (constituent) 95-63-6	48h EC50 Daphnia magna: = 6.14 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Partition coefficient
Solvent naphtha, petroleum, heavy aromatic	2.9 - 6.1
64742-94-5	
Butyrolactone	-0.566
96-48-0	
Naphthalene (constituent)	3.6
91-20-3	
2-Butoxyethanol	0.81
111-76-2	
1,2,4-Trimethylbenzene (constituent)	3.63
95-63-6	

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods Contain and dispose of waste according to local regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. TRANSPORT INFORMATION

Note: This information is not intended to convey all specific transportation requirements relating to

this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation

information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

DOT

UN/ID no

In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language Part 1.33].

UN1210 Printing Ink

Transport hazard class(es) 3
Packing Group | | |

ICAO / IATA / IMDG / IMO

Proper Shipping Name

UN/ID no UN1210
Proper Shipping Name UN1210
Printing Ink

Transport hazard class(es) 3
Packing Group III

15. REGULATORY INFORMATION

International Inventories

All substances are listed as ACTIVE on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Naphthalene (constituent)	91-20-3	1 - 5	0.1
2-Butoxyethanol	111-76-2	1 - 5	1.0
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Chemical name	CAS No.	Weight-%
Naphthalene (constituent)	91-20-3	1 - 5
Ethylene glycol monopropyl ether	2807-30-9	1 - 5

US State Regulations

Chemical name	Massachusetts
Naphthalene (constituent)	X
91-20-3	
2-Butoxyethanol	X
111-76-2	
1,2,4-Trimethylbenzene (constituent)	X
95-63-6	

Chemical name	Minnesota
	Right To Know
Naphthalene (constituent) 91-20-3	Х
2-Butoxyethanol 111-76-2	X

1,2,4-Trimethylbenzene (constituent) 95-63-6	X

Chemical name	New Jersey
Naphthalene (constituent)	X
91-20-3	
2-Butoxyethanol	X
111-76-2	
Ethylene glycol monopropyl ether	X
2807-30-9	
1,2,4-Trimethylbenzene (constituent)	X
95-63-6	

Chemical name	Pennsylvania
Naphthalene (constituent)	X
91-20-3	
2-Butoxyethanol 111-76-2	X
Ethylene glycol monopropyl ether 2807-30-9	X
1,2,4-Trimethylbenzene (constituent) 95-63-6	X

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

0	Chemical name	California Proposition 65
Ī	Naphthalene (constituent)	Carcinogen

Canada

Chemical name	NPRI - National Pollutant Release Inventory
Solvent naphtha, petroleum, heavy aromatic	Part 5 Substance - Volatile Organic Compounds with Additional
64742-94-5	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants
Butyrolactone	Part 4 Substance - Criteria Air Contaminants
96-48-0	
Naphthalene (constituent)	Part 1, Group A Substance
91-20-3	Part 4 Substance - Criteria Air Contaminants
2-Butoxyethanol	Part 1, Group A Substance
111-76-2	Part 5 Substance - Volatile Organic Compounds with Additional
	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants
Ethylene glycol monopropyl ether	Part 5 Substance - Volatile Organic Compounds with Additional
2807-30-9	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants
1,2,4-Trimethylbenzene (constituent)	Part 1, Group A Substance
95-63-6	Part 5 Substance - Volatile Organic Compounds with Additional
	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Revision Date

Nov-28-2023

Pursuant to NOM-018-STPS-2015

This information within is considered correct but is not exhaustive and will be used for guidance only, which is based on the current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.

<u>Disclaime</u>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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