

Carco, Inc Safety Data Sheet

F-224 Marking Fluid Orange

SDS Revision Date: 04/01/2020

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity F-224 Marking Fluid Orange

Alternate Names F-224 Marking Fluid Orange

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Carco, Inc
10333 Shoemaker
P.O. Box 13859
Detroit, Michigan, USA 48213

Emergency

24 hour Emergency Telephone No. ChemTel 1-800-255-3924 (MIS0001475)
International +01-813-248-0585

Customer Service: Carco, Inc Phone +1 (313) 925-9000
Fax +1 (313) 925-9602
Email: sales@carcousa.net

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Combustible Liquid;H227 Combustible Liquid.

STOT RE 1;H372 Causes damage to organs through prolonged or repeated exposure. Specific Target
Organs: (central nervous system)

2.2. Label elements



Danger

H227 Combustible liquid.

H372 Causes damage to organs through prolonged or repeated exposure.

[Prevention]:

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

P235 Keep cool.

P260 Do not breathe dust, fume, mist, vapors or spray.

P262 Do not get in eyes, on skin, or on clothing.

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P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves, eye protection, face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER, doctor or physician.

P314 Get Medical advice or attention if you feel unwell.

P331 Do NOT induce vomiting.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.

[Disposal]:

P501 Dispose of contents or container in accordance with local and national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Dipropylene glycol methyl ether CAS Number: 0034590-94-8	50 - 75	Not Classified	[1][2]
2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]- CAS Number: 0003468-63-1	10 - 25	Not Classified	[1]
Stoddard solvent CAS Number: 0008052-41-3	5 - 10	STOT RE 1;H372 Asp. Tox. 1;H304	[1][2]
Rosin, Fumeric CAS Number: 800680-57-9	1 - 5	Not Classified	[1]
Cellulose Nitrate CAS Number: 0009004-70-0	1 - 5	Flam. Sol. 1;H228	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Move the exposed person to fresh air at once. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if any discomfort continues.

Eyes

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion DO NOT INDUCE VOMITING! If swallowed, vomiting may occur spontaneously. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Rinse mouth thoroughly. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Overview Treat symptomatically. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Use foam, extinguishing powder, dry chemicals, or carbon dioxide. Water may be ineffective. Water may be used to keep fire exposed containers cool.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: None

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

Keep cool.

Do not breathe dust, fume, mist, vapors or spray.

5.3. Advice for fire-fighters

In the event of fire, wear full protective clothing and NIOSH Approved Self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapors.

ERG Guide No. ----

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

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Avoid sparks, flames, heat and smoking. Ventilate. Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spill: Use a non-combustible material like vermiculite, sand or earth to soak up product and place in a container for later disposal.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Keep in containers lightly closed in a cool, well ventilated place. Do not store with oxidizing agents or acids. Keep in the original container. Avoid direct sunlight

Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool dry area, away from heat, sparks and open flame.

Keep containers sealed when not in use.

Store out of direct sunlight.

Store in a cool dry place.

Incompatible materials: Store away from oxidizers and acids.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

Section 8. Exposure controls / personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0003468-63-1	2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0008052-41-3	Stoddard solvent	OSHA	TWA 500 ppm (2900 mg/m3)
		ACGIH	TWA: 290 mg/m3 STEL: 580 mg/m3
		NIOSH	TWA 350 mg/m3 C 1800 mg/m3 [15-minute]
0009004-70-0	Cellulose Nitrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0034590-94-8	Dipropylene glycol methyl ether	OSHA	TWA(US) 100 ppm (600 mg/m3) [skin]
		ACGIH	TWA: 100 ppm STEL: 150 ppm
		NIOSH	TWA 100 ppm (600 mg/m3) ST 150 ppm (900 mg/m3) [skin]
800680-57-9	Rosin, Fumeric	OSHA	No Established Limit

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	ACGIH	No Established Limit
	NIOSH	No Established Limit

8.2. Exposure controls

Respiratory	Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. The following should be effective types of air purifying respirators: Organic vapor cartridge.
Eyes	Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.
Skin	Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Polyethylene/ethyl vinyl alcohol laminate ("PE/EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Do not smoke, or drink in work area. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Appearance	Colored Liquid
Odor	Sweet alcohol like
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	171 C 340 F
Flash Point	61-63 C 141-145F Method (Setaflash)
Evaporation rate (Ether = 1)	0.03
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.3 Upper Explosive Limit: 13.1
Vapor pressure (Pa)	<3mm
Vapor Density	>3
Relative Density	0.810 g/mL temperature (C) 20
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured

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Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC Content	70-80 wt-% Approximately 5.9 Lbs/gal
Water Solubility	90%

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

High temperatures and fires.

10.5. Incompatible materials

Store away from oxidizers and acids.

10.6. Hazardous decomposition products

None

Section 11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Dipropylene glycol methyl ether - (34590-94-8)	No data available	No data available	No data available	No data available	No data available

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2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]- - (3468-63-1)	15,000.00, Rat - Category: NA	>2,000.00, Rat - Category: 5	No data available	No data available	No data available
Stoddard solvent - (8052-41-3)	> 5,000.00, Rat - Category: NA	No data available	No data available	5.50, Rat - Category: NA	No data available
Rosin, Fumeric - (800680-57-9)	No data available	No data available	No data available	No data available	No data available
Cellulose Nitrate - (9004-70-0)	5,000.00, Mouse - Category: 5	No data available	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0003468-63-1	2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]-	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
0008052-41-3	Stoddard solvent	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
0009004-70-0	Cellulose Nitrate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
0034590-94-8	Dipropylene glycol methyl ether	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
800680-57-9	Rosin, Fumeric	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable

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STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Dipropylene glycol methyl ether - (34590-94-8)	10,000.00, Pimephales promelas	1,919.00, Daphnia magna	969.00 (72 hr), Algae
2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]- - (3468-63-1)	401.00, Oryzias latipes	Not Available	Not Available
Stoddard solvent - (8052-41-3)	Not Available	Not Available	Not Available
Rosin, Fumeric - (800680-57-9)	Not Available	Not Available	Not Available
Cellulose Nitrate - (9004-70-0)	Not Available	Not Available	579.00 (96 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

DOT (Domestic Surface
Transportation)

IMO / IMDG (Ocean
Transportation)

ICAO/IATA

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14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable DOT Label: ---	IMDG: Not Applicable Sub Class: Not Applicable EmS: Not Applicable	Air Class: Not Applicable Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user			
	Not Applicable No further information		
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			
	Not Applicable		

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All components of this material are either listed or exempt from listing on the TSCA Inventory.

NFPA Rankings:



US EPA Tier II Hazards

Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): No

Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Dipropylene glycol methyl ether

Proposition 65 - Carcinogens (>0.0%):

2-Naphthalenol, 1-[(2,4-dinitrophenyl)azo]-

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

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Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Dipropylene glycol methyl ether

Cellulose Nitrate

Stoddard solvent

Pennsylvania RTK Substances (>1%):

Dipropylene glycol methyl ether

Cellulose Nitrate

Stoddard solvent

Section 16. Other information

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H228 Flammable solid.

H304 May be fatal if swallowed and enters airways.

H372 Causes damage to organs through prolonged or repeated exposure.

This product is RoHS and REACH compliant. It does not contain any of the RoHS listed substances. It does not contain any chemical from the candidate list of Substances of Very High Concern (SVHC), Annex XIV, or Annex XVII of Reach.

This information is based on our present knowledge. However, it does not constitute a guarantee for any specific product properties.

Carco urges the recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. The use of this product is beyond the control Carco or its distributor, therefore, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.

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