

SAFETY DATA SHEET**Foster® MONOLAR® 60-91**

Version 1.2

Revision Date 12/05/2023

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Foster® MONOLAR® 60-91
Product code : 100000015014

Manufacturer or supplier's details

Company : H.B. Fuller Company
Address : 1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Telephone : 1-888-423-8553

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Solvent based adhesive
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	viscous liquid
Color	gray
Odor	solvent

GHS Classification

Flammable liquids : Category 3
Skin irritation : Category 2
Eye irritation : Category 2A
Carcinogenicity : Category 1B
Reproductive toxicity : Category 1B
Effects on or via lactation :
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)
Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :



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Signal Word : Danger

Hazard Statements:

H226 Flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H350 May cause cancer. H360 May damage fertility or the unborn child. H362 May cause harm to breast-fed children.

Precautionary Statements:

Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mist or vapors. P263 Avoid contact during pregnancy/ while nursing. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P331 Do NOT induce vomiting. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects**Carcinogenicity:****IARC**

Group 1: Carcinogenic to humans

Quartz (SiO₂) 14808-60-7

Group 2B: Possibly carcinogenic to humans

Paraffin waxes and
Hydrocarbon waxes, chloro 63449-39-8

Alkanes, chloro 61788-76-9

cumene 98-82-8

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

Known to be human carcinogen

Quartz (SiO₂) 14808-60-7

Reasonably anticipated to be a human carcinogen

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Paraffin waxes and Hydrocarbon waxes, chloro	63449-39-8
cumene	98-82-8
diantimony trioxide	1309-64-4

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
Feldspar-group minerals	68476-25-5	10 - 20
1,2,4-trimethylbenzene	95-63-6	10 - 20
Paraffin waxes and Hydrocarbon waxes, chloro	63449-39-8	5 - 10
Alkanes, chloro	61788-76-9	5 - 10
Alkanes, C14-17, chloro	85535-85-9	5 - 10
Titanium dioxide	13463-67-7	5 - 10
Solvent naphtha (petroleum), light arom.	64742-95-6	1 - 5
Wollastonite (Ca(SiO ₃))	13983-17-0	1 - 5
mesitylene	108-67-8	1 - 5
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite	71011-27-3	1 - 5
Quartz (SiO ₂)	14808-60-7	1 - 5
Xylene	1330-20-7	1 - 5
cumene	98-82-8	1 - 5
2-(propyloxy)ethanol	2807-30-9	1 - 5
trimethylbenzene	25551-13-7	1 - 5
diisooctyl 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxoisocrotonate]	25168-21-2	0.1 - 1
diantimony trioxide	1309-64-4	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	: Show this material safety data sheet to the doctor in attendance.
If inhaled	: Move to fresh air. If symptoms persist, call a physician.
In case of skin contact	: Wash off with soap and water. Get medical attention if irritation develops and persists.
In case of eye contact	: Flush eyes with water at least 15 minutes. Get medical

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attention if eye irritation develops or persists.

If swallowed : Do NOT induce vomiting.
If victim is fully conscious, give a cupful of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed : May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause cancer.
May damage fertility or the unborn child.
May cause harm to breast-fed children.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during fire fighting : Cool closed containers exposed to fire with water spray.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent spreading over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
Sweep up and shovel into suitable containers for disposal.
Non-sparking tools should be used.

SECTION 7. HANDLING AND STORAGE

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Avoid inhalation of vapor or mist.

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Do not use in areas without adequate ventilation.
 Keep away from fire, sparks and heated surfaces.
 Keep container closed when not in use.
 Take precautionary measures against static discharges.

Conditions for safe storage : Take measures to prevent the build up of electrostatic charge.
 Use explosion-proof equipment.
 Keep containers tightly closed in a dry, cool and well-ventilated place.
 Keep away from sources of ignition - No smoking.
 Solvent vapors are heavier than air and may spread along floors.

Materials to avoid : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1,2,4-trimethylbenzene	95-63-6	TWA	10 ppm	ACGIH
Titanium dioxide	13463-67-7	TWA	10 mg/m ³	ACGIH
		TWA (total dust)	15 mg/m ³	OSHA Z-1
		TWA (Total)	10 mg/m ³	OSHA P0
		TWA (Total dust)	10 mg/m ³	OSHA P0
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	200 mg/m ³	ACGIH
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
Wollastonite (Ca(SiO ₃))	13983-17-0	TWA (Inhalable particulate matter)	1 mg/m ³	ACGIH
Quartz (SiO ₂)	14808-60-7	TWA (Respirable particulate matter)	0.025 mg/m ³	ACGIH
		TWA (total dust)	30 mg/m ³ / %SiO ₂ +2	OSHA Z-3
		TWA (respirable)	10 mg/m ³ / %SiO ₂ +2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO ₂ +5	OSHA Z-3

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		TWA (Respirable fraction)	0.1 mg/m ³	OSHA P0
		TWA (Respirable dust)	0.05 mg/m ³	OSHA Z-1
		PEL (Respirable dust)	0.05 mg/m ³	CAL PEL
		TWA (respirable dust fraction)	0.1 mg/m ³	OSHA P0
Xylene	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		STEL	150 ppm 655 mg/m ³	OSHA P0
		TWA	100 ppm 435 mg/m ³	OSHA P0
		TWA	100 ppm 435 mg/m ³	OSHA Z-1
		STEL	150 ppm 655 mg/m ³	CAL PEL
		C	300 ppm	CAL PEL
		PEL	100 ppm 435 mg/m ³	CAL PEL
		TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m ³	OSHA P0
		STEL	150 ppm 655 mg/m ³	OSHA P0
cumene	98-82-8	TWA	5 ppm	ACGIH
		TWA	50 ppm 245 mg/m ³	NIOSH REL
		TWA	50 ppm 245 mg/m ³	OSHA Z-1
		TWA	50 ppm 245 mg/m ³	OSHA P0
		PEL	50 ppm 245 mg/m ³	CAL PEL
trimethylbenzene	25551-13-7	TWA	25 ppm	ACGIH
		TWA	25 ppm 125 mg/m ³	OSHA P0
diisooctyl 4,4'- [(dibutylstannylene)bis(oxy)]bis [4-oxoisocrotonate]	25168-21-2	TWA	0.1 mg/m ³	OSHA Z-1
		TWA	0.1 mg/m ³	ACGIH
		STEL	0.2 mg/m ³	ACGIH
		TWA	0.1 mg/m ³	OSHA P0
		TWA	0.1 mg/m ³	NIOSH REL
		PEL	0.1 mg/m ³	CAL PEL

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		STEL	0.2 mg/m3	CAL PEL
diantimony trioxide	1309-64-4	TWA	0.5 mg/m3	OSHA Z-1
		TWA	0.5 mg/m3	OSHA P0
		TWA (Inhalable particulate matter)	0.02 mg/m3	ACGIH

Engineering measures : Use local exhaust ventilation or other engineering controls to minimize exposures.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate risk management measures (exhaust/ ventilation) are provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Organic vapor Type

Hand protection
Material : Nitrile rubber

Eye protection : Safety glasses with side-shields

Hygiene measures : Avoid contact with skin, eyes and clothing.
Provide adequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid
 Color : gray
 Odor : solvent
 Odor Threshold : no data available
 pH : Not applicable
 Melting point/freezing point : is not determined
 Boiling point/boiling range : is not determined
 Flash point : 46 °C Method: Tag closed cup
 Evaporation rate : is not determined
 Upper explosion limit : Upper flammability limit
 is not determined
 Lower explosion limit : Lower flammability limit
 is not determined
 Vapor pressure : is not determined
 Density : 10.4 - 10.8 lb/gal
 Solubility(ies)

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Water solubility	: is not determined
Partition coefficient: n-octanol/water	: no data available
Autoignition temperature	: is not determined
Viscosity	
Viscosity, kinematic	: is not determined
VOC, less water, in g/l	: 513

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Heat, flames and sparks.
Hazardous decomposition products	: Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : 92.83 mg/l Exposure time: 4 Hours Test atmosphere: vapor Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:**1,2,4-trimethylbenzene:**

Acute oral toxicity	: LD50 Oral Rat: 3,400 mg/kg
Acute inhalation toxicity	: LC50 Rat: 18 mg/l Exposure time: 4 h Test atmosphere: vapor

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Acute dermal toxicity : LD50 Dermal Rabbit: > 3,160 mg/kg

Solvent naphtha (petroleum), light arom.:Acute inhalation toxicity : LC50 Rat: > 5.2 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal Rabbit: > 2,000 mg/kg

Xylene:

Acute oral toxicity : LD50 Oral Rat: 4,300 mg/kg

Acute inhalation toxicity : LC50 Rat: 47,635 mg/l
Exposure time: 4 h
Test atmosphere: vapor**cumene:**

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****1,2,4-trimethylbenzene :**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 7.19 - 8.28 mg/l
Exposure time: 96 h
Test Method: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6.14 mg/l
Exposure time: 48 h
Test Method: static test

Paraffin waxes and Hydrocarbon waxes, chloro :

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.0109 mg/l
Exposure time: 96 h
Test Method: flow-through test

Solvent naphtha (petroleum), light arom. :

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 9.22 mg/l
Exposure time: 96 h
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6.14 mg/l
Exposure time: 48 h
Test Method: static test

mesitylene :

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 3.48 mg/l
Exposure time: 96 h
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 50 mg/l
Exposure time: 24 h
Test Method: static test

Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with hectorite :

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): >= 100 mg/l
Exposure time: 72 h
Test Type: flow-through test

cumene :

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.7 mg/l
Exposure time: 96 h

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Test Method: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.6 mg/l
Exposure time: 48 h
Test Method: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 2.6 mg/l
Exposure time: 72 h
Test Type: flow-through test

diantimony trioxide :

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 80 mg/l
Exposure time: 96 h
Test Method: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.63 - 0.8 mg/l
Exposure time: 72 h
Test Type: flow-through test

Persistence and degradability

No data available

Bioaccumulative potential**Components:****1,2,4-trimethylbenzene :**

Partition coefficient: n-octanol/water : log Pow: 3.78

Paraffin waxes and Hydrocarbon waxes, chloro :

Partition coefficient: n-octanol/water : log Pow: 7.46 - 11.48 (20 °C)
pH: 7
GLP: no

Alkanes, C14-17, chloro :

Partition coefficient: n-octanol/water : log Pow: 4.7 - 8.3GLP: no

mesitylene :

Partition coefficient: n-octanol/water : log Pow: 3.42

Xylene :

Partition coefficient: n-octanol/water : log Pow: 2.77 - 3.15GLP: no

cumene :

Partition coefficient: n-octanol/water : log Pow: 3.66

Mobility in soil

No data available

Other adverse effects

No data available

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SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : This product meets the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. It is ignitable waste class D001. Disposal via incineration is recommended. Consult your state, local, or provincial authorities for more restrictive requirements. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (Alkanes, C14-17, Chloro)
Class : 9
Packing group : III
Labels : Miscellaneous,
Packing instruction (cargo aircraft) : 956
Packing instruction (passenger aircraft) : 956

IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkanes, C14-17, Chloro)
Class : 9
Subsidiary risk : ENVIRONM.
Packing group : III
Labels : 9 (ENVIRONM.)
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

Not regulated as a dangerous good

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Reproductive toxicity
Aspiration hazard
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)
Carcinogenicity

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

1,2,4-trimethylbenzene	95-63-6
Xylene	1330-20-7
cumene	98-82-8
2-(propyloxy)ethanol	2807-30-9

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Xylene	1330-20-7
cumene	98-82-8
2-(propyloxy)ethanol	2807-30-9

US State Regulations

California Prop 65 Please contact Supplier for more information.

The ingredients of this product are reported in the following inventories:

TSCA All substances listed as active on the TSCA inventory
Inventories Legend TSCA (USA), DSL (Canada), REACH(Europe), AIIIC (Australia), NZIoC (New Zealand), ENCS (Japan), KECl (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

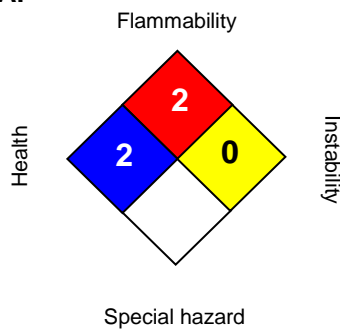
SECTION 16. OTHER INFORMATION

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Prepared by: Global Regulatory Office - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

Further information
NFPA:

HMIS III:

HEALTH	4*
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.