

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29CFR 1910.1200
(HCS 2012)

1134793		GSMM Medium 1420	BKT33LB
Product specification	RS_FP_600576	Revision Date	01/04/2017
Version	2.0	Print Date	11/01/2018
Material number	1134793	Page	Page 1 of 14

SECTION 1. IDENTIFICATION

Product name : **1134793**
GSMM Medium 1420 BKT33LB

Material number : **1134793**

Manufacturer or supplier's details

Company name of supplier : Ferro Corporation

Address : 6060 Parkland Blvd. Suite 250
Mayfield Heights OH 44124-4185

Telephone : (216) 875-5600

Emergency telephone number

In-Country Number : (800)424-9300

CHEMTREC Global Number : +(1)-703-527-3887(Call Collect)

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4

Acute toxicity (Dermal) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H227 Combustible liquid.
H312 Harmful in contact with skin.

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	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
Precautionary statements	Prevention:	
	P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
	P264	Wash skin thoroughly after handling.
	P280	Wear protective gloves/ eye protection/ face protection.
	Response:	
	P302 + P352 + P312	IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/ physician 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.
	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 + P235	Store in a well-ventilated place. Keep cool.
	Disposal:	
	P501	Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	: Mixture
Chemical nature	: glycol ether/-acetate, synthetic polymer, carbohydrate/(derivative of) cellulose

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
2-(2-butoxyethoxy)ethanol	112-34-5	>= 30 - < 50
2-butoxyethanol	111-76-2	>= 20 - < 30
pine oil	8002-09-3	>= 1 - < 5

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SECTION 4. FIRST AID MEASURES

General advice	: Consult a physician.
If inhaled	: Remove to fresh air. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person.
In case of skin contact	: Wash off immediately with soap and plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
In case of eye contact	: Rinse immediately with plenty of water and seek medical advice.
If swallowed	: Do NOT induce vomiting. Rinse immediately with plenty of water and seek medical advice.
Most important symptoms and effects, both acute and delayed	: Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	: Exposure to decomposition products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.
Further information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,	: Ensure adequate ventilation.
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- protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.
- Methods and materials for containment and cleaning up : Sweep up and shovel into suitable containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Keep away from combustible material.
- Advice on safe handling : Do not get in eyes or mouth or on skin. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Do not use in areas without adequate ventilation. Keep away from heat and sources of ignition.
- Conditions for safe storage : Keep in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m ³	NIOSH REL
		TWA	50 ppm 240 mg/m ³	OSHA Z-1
		TWA	25 ppm 120 mg/m ³	OSHA P0

Hazardous components without workplace control parameters

Components	CAS-No.
pine oil	8002-09-3

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Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
2-butoxyethanol	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

Engineering measures : Apply technical measures to comply with the occupational exposure limits.
Provide adequate ventilation.

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection
Material : Protective gloves

Eye protection : Safety glasses with side-shields
Ensure that eyewash stations and safety showers are close to the workstation location.

Protective measures : Wear suitable protective equipment.
Avoid contact with skin.
When using do not eat, drink or smoke.

Hygiene measures : Remove contaminated clothing and protective equipment before entering eating areas.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : coloured

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

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Flash point : 62 °C
Method: calculated

Evaporation rate : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Bulk density : 0.92 g/cm³

Solubility(ies)
Water solubility : soluble

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : Not determined

Decomposition temperature : No data available

Viscosity
Viscosity, kinematic : No data available

Oxidizing properties : No data available

Refractive index : No data available

Volatile organic compounds (VOC) content : 87.8 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No data available

Chemical stability : No data available

Possibility of hazardous reactions : No data available

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Conditions to avoid : Incompatible materials

Incompatible materials : Incompatible with oxidizing agents.
Incompatible with strong acids and bases.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

inhalation (dust/mist/fume)

inhalation (vapour)

Skin

Eye contact

Ingestion

Acute toxicity

Harmful in contact with skin.

Product:

Acute oral toxicity : Acute toxicity estimate: 4,250 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 1,976 mg/kg
Method: Calculation method

Components:

2-(2-butoxyethoxy)ethanol:

Acute oral toxicity : LD50 Oral (Rat): 5,660 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit, male): 2,764 mg/kg
Method: OECD Test Guideline 402

2-butoxyethanol:

Acute oral toxicity : LD50 Oral (Rat, male and female): 1,200 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute inhalation toxicity : LC50 (Rat, male): 2.4 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: no
Assessment: The substance or mixture has no acute
inhalation toxicity

LC50 (Rat, female): 2.2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: no

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Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rat, male and female): 841 mg/kg
Method: OECD Test Guideline 402
GLP: yes

pine oil:

Acute oral toxicity : LD50 Oral (Rat): 5,180 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

2-(2-butoxyethoxy)ethanol:

Species: Rabbit
Exposure time: 1 h
Method: OECD Test Guideline 404
Result: Mild skin irritation

2-butoxyethanol:

Species: Rabbit
Exposure time: 72 h
Method: OECD Test Guideline 404
Result: Irritating to skin.
GLP: yes

pine oil:

Species: Rabbit
Assessment: Irritating to skin.
Method: Draize Test
Result: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

2-(2-butoxyethoxy)ethanol:

Species: Rabbit
Result: Eye irritation
Exposure time: 72 h
Method: OECD Test Guideline 405
GLP: no

2-butoxyethanol:

Result: Eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

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Germ cell mutagenicity

Not classified based on available information.

Components:

pine oil:

Genotoxicity in vitro : Test Type: in vitro assay
Species: Salmonella typhimurium
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

pine oil:

Species: Mouse
Application Route: dermal

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT Specific Target Organ Toxicity - single exposure

Not classified based on available information.

STOT Specific Target Organ Toxicity - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Components:

pine oil:

May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

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2-(2-butoxyethoxy)ethanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202

Toxicity to algae : EC50 (algae): > 100 mg/l
 Exposure time: 96 h

2-butoxyethanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,490 mg/l
 Exposure time: 96 h
 Test Type: static test
 Method: OECD Test Guideline 203
 GLP: no

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,800 mg/l
 Exposure time: 48 h

Persistence and degradability**Components:****2-(2-butoxyethoxy)ethanol:**

Biodegradability : Remarks: No data available

2-butoxyethanol:

Biodegradability : Remarks: No data available

pine oil:

Biodegradability : Remarks: No data available

Bioaccumulative potential**Components:****2-(2-butoxyethoxy)ethanol:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : log Pow: 0.56 (20 °C)

2-butoxyethanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : log Pow: 0.77 (20 °C)
 pH: 7

pine oil:

Bioaccumulation : Remarks: No data available

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Partition coefficient: n-octanol/water : log Pow: 1.7

Mobility in soil

Components:

2-(2-butoxyethoxy)ethanol:

Distribution among environmental compartments : Remarks: No data available

2-butoxyethanol:

Distribution among environmental compartments : Remarks: No data available

pine oil:

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

National Regulations

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49 CFR

UN number : UN 1993
Proper shipping name : COMBUSTIBLE LIQUID, N.O.S.
(2-butoxyethanol, Alkanes, C10-13-iso-, mineral spirits)
Class : CBL
Packing group : III
Labels : NONE
ERG Code : 128
Marine pollutant : no
Remarks : Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).

SECTION 15. REGULATORY INFORMATION

TSCA list : TSCA 5a - Not relevant

TSCA list : TSCA_12b - Not relevant

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product contains components that are reportable under the regulation.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product contains components that are reportable under the regulation.
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product contains components that are reportable under the regulation.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

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This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

This product contains components that are reportable under the regulation.

Pennsylvania Right To Know

This product contains components that are reportable under the regulation.

New Jersey Right To Know

This product contains components that are reportable under the regulation.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

- EINECS (European Union) : On the inventory, or in compliance with the inventory
- SWISS (Switzerland) : On the inventory, or in compliance with the inventory
- TSCA (United States) : On TSCA Inventory
- DSL/NDL (Canada) : All components of this product are on the Canadian DSL.
- AICS (Australia) : On the inventory, or in compliance with the inventory
- NZioC (New Zealand) : On the inventory, or in compliance with the inventory
- ENCS (Japan) : On the inventory, or in compliance with the inventory
- ISHL (Japan) : Not in compliance with the inventory
- KECI (Korea) : On the inventory, or in compliance with the inventory
- PICCS (Philippines) : On the inventory, or in compliance with the inventory
- IECSC (China) : On the inventory, or in compliance with the inventory
- TCSI (Taiwan) : Not in compliance with the inventory
- CICR (Turkey) : Not in compliance with the inventory
- INSQ (Mexico) : Not in compliance with the inventory

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SECTION 16. OTHER INFORMATION

Revision Date : 01/04/2017

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.

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