

GRUMBACHER WORKABLE FIXATIVE, 546-646**7/20/2015**

21724-XXXX

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Chemical Name

CAS No.

Trade Name

Product Code

Mixture

Mixture

GRUMBACHER WORKABLE FIXATIVE

546 & 646 / M-5356

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

Identified Use(s)

Uses Advised Against

Company Identification

Metalworking product

None

Chartpak, Inc.

One River Road

Leeds, MA 01053

Telephone

Fax

E-Mail (competent person)

(800) 628-1910

(413) 586-9339

info@chartpak.com

Emergency telephone number

Emergency Phone No.

Transportation Emergency: CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)**SECTION 2: HAZARDS IDENTIFICATION****Classification of the substance or mixture**

OSHA HCS (29 CFR 1910.1200)

Flam. Aerosol 1; Liquefied gas; Skin Irrit. 2; Eye Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1

Label elements

Hazard Symbol



Signal word(s)

DANGER

Hazard Statement(s)

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging fertility or the unborn child.

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

May cause damage to organs through prolonged or repeated exposure (Inhalation - neuropsychological effects, auditory dysfunction and effects on colour vision)

GRUMBACHER WORKABLE FIXATIVE, 546-646**7/20/2015****Precautionary Statement(s)**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

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

Use only outdoors or in a well-ventilated area.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash hands and exposed skin after use.

Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.

Harmful to aquatic life.

Other hazards**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
Acetone	40 - 50	67-64-1	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
Ethyl Acetate	10 - 20	141-78-6	Flam. Liq. 2; H225 STOT SE 3; H336
Propane	10 - 20	74-98-6	Flam. Gas 1; H220 Liquefied gas; H280
Butane	10 - 20	106-97-8	Flam. Gas 1; H220 Liquefied gas; H280
Xylene	1 - 10	1330-20-7	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2B; H319 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Acute 2; H401
n-Butyl Acetate	1 - 10	123-86-4	Flam. Liq. 3; H226 STOT SE 3; H336
Toluene	1 - 10	108-88-3	Flam. Liq. 2; H225 Repr. 2; H361 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Asp. Tox. 1; H304 STOT SE 3; H336 STOT RE 2; H373 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Ethyl benzene	1 - 10	100-41-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 Asp. Tox. 1; H304 STOT RE 2; H373 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Isopropanol	< 5	67-63-0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
Methyl Ethyl Ketone	< 5	78-93-3	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

Additional Information - None

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* The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES**Description of first aid measures**

Inhalation

Move person to fresh air. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.

Skin Contact

Wash affected skin with soap and water. If symptoms develop, obtain medical attention. Take off contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

Do not give anything by mouth to an unconscious person. Seek medical treatment. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Aspiration of droplets may cause pulmonary oedema. May cause drowsiness and dizziness.

Indication of any immediate medical attention and special treatment needed

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

SECTION 5: FIRE-FIGHTING MEASURES**Extinguishing Media**

- Suitable Extinguishing Media
- Unsuitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray. Do not use water jet.

Special hazards arising from the substance or mixture

Pressurised container: May burst if heated

Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Eliminate sources of ignition. Avoid contact with skin and eyes. Avoid breathing vapors.

Environmental precautions

Prevent liquid entering sewers, basements and work pits.

Methods and material for containment and cleaning up

Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.

Reference to other sections

None

Additional Information

None

SECTION 7: HANDLING AND STORAGE**Precautions for safe handling**

Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid contact with skin and eyes. Use product in a well-ventilated area only. Avoid breathing spray.

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Conditions for safe storage, including any incompatibilities

-Storage temperature

Keep in a cool, well ventilated place. Store at temperatures not exceeding 50 °C / 122 °F.

-Incompatible materials

This product should be stored away from sources of strong heat or oxidizing chemicals.

Specific end use(s)

Metalworking product

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Acetone	67-64-1	1000 ppm	250 ppm	-----	500 ppm	----
Toluene	108-88-3	200 ppm	20 ppm	300 ppm*	-----	*10-min. Ceiling
Propane	74-98-6	1000 ppm	Aspyx.#	-----	-----	#
Ethyl benzene	100-41-4	100 ppm	20 ppm	----	-----	----
Xylene	1330-20-7	100 ppm	100 ppm	----	150 ppm	----
n-Butyl Acetate	123-86-4	150 ppm	150 ppm	-----	200 ppm	-----
Methyl Ethyl Ketone	78-93-3	200 ppm	200 ppm	----	300 ppm	----
Ethyl Acetate	141-78-6	400 ppm	400 ppm	-----	-----	-----
Isopropanol	67-63-0	400 ppm	-----	200 ppm	400 ppm	-----

*Assure minimum oxygen content of work atmosphere.

Recommended monitoring method

NIOSH 1300 (Ketones I); NIOSH 1500 (hydrocarbons, B.P. 36 - 126 °C); NIOSH 1501 (Hydrocarbons, Aromatic); NIOSH 1401 (Alcohols II), NIOSH 1450 (Esters I), NIOSH 1457 (Ethyl Acetate)

Exposure controls**Appropriate engineering controls**

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

Personal protection equipment

Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)



Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data.

Respiratory protection



Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Prevent liquid entering sewers, basements and work pits.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Aerosol spray
Color	Clear
Odor	Hydrocarbon
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	Not available
Flash Point (°C)	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Extremely flammable aerosol.
Explosive Limit Ranges	2.1% - 9.5% v/v (Propane)
Vapor pressure (Pascal)	ca. 95×10^4 (Propane)
Vapor Density (Air=1)	ca. 1.56 @ 0°C (Propane)
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	Not available
Decomposition Temperature (°C)	Not available
Kinematic Viscosity	<20 mm ² /s @ 40°C
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

Other information

Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability

Stable.

Possibility of hazardous reactions

None anticipated.

Conditions to avoid

Avoid contact with heat and ignition sources.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition product(s)

Carbon monoxide, Carbon dioxide, Acrid smoke

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

Acetone (CAS No. 67-64-1)

Acute toxicity

Oral LD50 = 5800 mg/kg (rat)
 Dermal LD50 >15800 mg/kg (rabbit)
 Inhalation LC50 76 mg/L (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity

Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

Oral NOAEL = 900 mg/kg/day (rat) (90-days)
 Inhalation NOAEL \geq 19,000 ppm (rat)

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity

Negative

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Toxicity for reproduction
Other information

Negative
 None known.

Toluene (CAS No. 108-88-3)**Acute toxicity**

Oral LD50 = 5580 mg/kg (rat)
 Dermal LD50 >5000 mg/kg (rabbit)
 Inhalation LC50 (4 hour(s)) 28.1 mg/l (rat) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity

Causes serious eye irritation. Causes skin irritation.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

Inhalation NOAEC = 1131 mg/m³ (rat), 2 Year(s) - May cause damage to organs through prolonged or repeated exposure: neuropsychological effects, auditory dysfunction and effects on colour vision.

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity

There is no evidence of mutagenic potential.

Reproductive toxicity

Suspected of damaging the unborn child. NOAEC: 2.8 mg/liter (rat)

Methyl Ethyl Ketone (CAS No. 78-93-3)**Acute toxicity**

Oral LD50 = 3460 mg/kg (rat)
 Dermal LD50 >10 ml/kg (rabbit)
 Inhalation LC50 >5041 ppm (6 hour(s)) (rat) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity

Causes serious eye irritation. Unlikely to cause skin irritation.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

Inhalation NOAEL ≥ 5041 ppm (rat)

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity

Negative

Toxicity for reproduction

Negative

Other information

None known.

Isopropanol (CAS# 67-63-0):**Acute toxicity**

Oral: LD50 = 5.84 g/kg (rat)
 Dermal: LD50 = 16.4 ml/kg (rabbit) 24 hour(s)
 Inhalation: LC50 > 1000 ppm (rat) 6 hour(s) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity

Irritating to eyes.

Sensitisation

It is not a skin sensitizer.

Repeated dose toxicity

NOAEL = 5,000 ppm (Inhalation) - Vapours may cause drowsiness and dizziness.

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

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Mutagenicity
Toxicity for reproduction
Other information

There is no evidence of mutagenic potential.
No information available
None known.

Ethyl benzene (CAS# 100-41-4):

A3 - Confirmed Animal Carcinogen with unknown relevance to humans (ACGIH®). IARC Group 2B - Possibly carcinogenic to humans.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toluene (CAS No. 108-88-3)

Acute toxicity

LC50 (96 hour): 5.5 mg/l (*Oncorhynchus kisutch*)
EC50 (48 hour): 3.78 mg/l (*Ceriodaphnia dubia*)
EC50 (3 hour): 134 mg/l (Algae)

Long Term Toxicity

NOEC (40 days): 1.39 mg/l (*Oncorhynchus kisutch*)
NOEC (7 days): 0.74 mg/l (*Ceriodaphnia dubia*)

Xylene (CAS No. 1330-20-7)

Acute toxicity (By analogy with similar materials)

LC50 (96 hour) = 2.6 mg/l (*Oncorhynchus mykiss*)
IC50 (24 hour(s)) = 1 mg/l (*Daphnia magna*)
EC50 (73 hour(s)) = 1.9 mg/l (*Pseudokirchnerella subcapitata*)

Long Term

IC50 (24 hour(s)) = 1 mg/l (*Daphnia magna*)

Persistence and degradability

Biodegradable

Bioaccumulative potential

The product has no potential for bioaccumulation.

Mobility in soil

Not available.

Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable			

SECTION 15: REGULATORY INFORMATION

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

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Acetone	67-64-1	40 - 50	5000

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Toluene	108-88-3	1 - 10	1000
Methyl Ethyl Ketone	78-93-3	< 5	5000
n-Butyl Acetate	123-86-4	1 - 10	5000
Ethyl Acetate	141-78-6	10 - 20	5000
Ethylbenzene	100-41-4	1 - 10	1000

SARA 311/312 - Hazard Categories:

☒ Fire ☒ Sudden Release ☐ Reactivity ☒ Immediate (acute) ☒ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Toluene	108-88-3	1 - 10
Ethyl benzene	100-41-4	1 - 10
Isopropanol	67-63-0	< 5

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
Toluene	108-88-3	Developmental, Female Reproductive
Ethyl benzene	100-41-4	Cancer
Benzene*	71-43-2	Cancer; Female Reproductive
Cumene*	98-82-8	Cancer

*Trace to none.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: July 9, 2015

Hazard Statement(s) and Risk Phrases Listed in: SECTION 3:

Hazard Statement(s)

- H220: Extremely flammable gas.
- H225: Highly flammable liquid and vapor.
- H226: Flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H336: May cause drowsiness or dizziness.
- H361: Suspected of damaging fertility or the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H401: Toxic to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.

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