



21724-1011

GRUMBACHER 543, 549 FINAL FIXATIVES SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
CAS No.	Mixture
Trade Name	GRUMBACHER 543, 549 FINAL FIXATIVES
Product Code	10-5353

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

Identified Use(s)	Fixative
Uses Advised Against	None
Company Identification	Chartpak, Inc. One River Road Leeds, MA 01053

Telephone	800.628.1910
Fax	
E-Mail (competent person)	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)
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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; Asp. Tox. 1; STOT SE 3

Label elements

Hazard Symbol

**DANGER**

Signal word(s)

Hazard Statement(s)

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
May cause respiratory irritation.
Repeated exposure may cause skin dryness or cracking.

Precautionary Statement(s)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Use only outdoors or in a well-ventilated area.
Do not breathe mist/vapours/spray.
Wear protective gloves/eye protection.
Wash hands and exposed skin after use.



GRUMBACHER 543, 549 FINAL FIXATIVES

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

Other hazards

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
Acetone	30 - 40	67-64-1	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
Xylene**	30 - 40	1330-20-7	Flam. Liq. 3; H226 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Asp. Tox. 1; H304 STOT SE 3; H335
Propane	10 - 15	74-98-6	Flam. Gas 1; H220 Press. Gas (*)
Butane	10 - 15	106-97-8	Flam. Gas 1; H220 Press. Gas (*)

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.:

**Contains: Ethylbenzene (CAS No. 100-41-4) <10%; Benzene (CAS No. 71-43-2) <0.1%; and Toluene (CAS No. 108-88-3) <0.5%

* 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

May be harmful if swallowed and enters airways.

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.



GRUMBACHER 543, 549 FINAL FIXATIVES

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

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

Conditions for safe storage, including any incompatibilities

-Storage temperature

Keep in a cool, well ventilated place. Do not expose to temperatures 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)

Fixative

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	-----
Xylene	1330-20-7	100 ppm	100 ppm	-----	150 ppm	-----
Toluene	108-88-3	200 ppm	20 ppm	300 ppm*	-----	*10-min. Ceiling
n-Butane	106-97-8	-----	250 ppm	-----	-----	-----
Propane	74-98-6	1000 ppm	Aspyx.#	-----	-----	#
Ethylbenzene	100-41-4	100 ppm	20 ppm	-----	-----	A3

A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans; # Assure minimum oxygen content of work atmosphere.

Recommended monitoring method

NIOSH 1500 (hydrocarbons, B.P. 36 - 126 °C) ; NIOSH 1501 (Hydrocarbons, Aromatic); NIOSH 1300 (Ketones I)

Exposure controls

Appropriate engineering controls

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

Personal protection equipment



GRUMBACHER 543, 549 FINAL FIXATIVES

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

None known

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid / Aerosol
Color.	Not available
Odor	Not available
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	56 (Acetone)
Flash Point (°C)	-17 (Acetone)
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 x 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)	450 (Propane)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	< 20.5 @ 40 0°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



GRUMBACHER 543, 549 FINAL FIXATIVES

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

Toxicity for reproduction

Negative

Other information

None known.

Xylenes (CAS No.1330-20-7)

Acute toxicity

Oral LD50 = 3520 mg/kg (rat)
 Dermal LD50 >5000 mg/kg (rabbit)
 Inhalation LC50 = 27.6 mg/L (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness. May cause respiratory irritation.

Irritation / Corrosivity

Causes eye irritation. Causes skin 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

Toxicity for reproduction

Negative

Other information

* Contains: Ethylbenzene (CAS# 100-41-4). A3 - Confirmed Animal Carcinogen with unknown relevance to humans (ACGIH®). IARC Group 2B - Possibly carcinogenic to humans.

Propane (CAS# 74-98-6):

Acute toxicity

Inhalation: LC50 = 1237 mg/L (2-hr, mouse, gas)

Irritation/Corrosivity

No evidence of irritant effects from normal handling and use.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

NOAEC: \geq 19678 mg/m³ (28-day, rat, Systemic effects)
 LOAEC: 21641 mg/m³ (28-day, rat, effects: Body weight)

Carcinogenicity

No data. It is unlikely to present a carcinogenic hazard to man.

Mutagenicity

There is no evidence of mutagenic potential.

Reproductive toxicity

None anticipated



GRUMBACHER 543, 549 FINAL FIXATIVES

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Xylene (CAS No. 1330-20-7)*

Short term (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*)

Other: *Typically contains Ethylbenzene

Propane (CAS# 74-98-6):

Short term (estimate)

LC50 (96 hour): 27.98 mg/L (fish)

LC50 (48 hour): 14.22 mg/L (crustacea)

EC50 (96 hour): 7.71 mg/L (algae)

Long Term

No data.

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

	Land transport U.S. DOT	Sea transport (IMDG)	Air transport (ICAO/IATA)
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 and active, or exempt.

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

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Acetone	67-64-1	30 - 40	5000
Toluene	108-88-3	<1	1000
Xylene	1330-20-7	15-35	100
Ethylbenzene	100-41-4	< 10	1000

SARA 311/312 - Hazard Categories: See SECTION 2: HAZARDS IDENTIFICATION

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Toluene	108-88-3	<1
Xylene	1330-20-7	15-35
Ethylbenzene	100-41-4	< 10



GRUMBACHER 543, 549 FINAL FIXATIVES

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
Ethylbenzene	100-41-4	Cancer
Benzene*	71-43-2	Cancer, Developmental (male)

*Trace to none.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 11.

Date of preparation: October 16, 2019

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H220: Extremely flammable gas.
- H225: Highly flammable liquid and vapor.
- H226: Flammable liquid and vapour.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H340: May cause genetic defects.
- H402: Harmful to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.

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