



Issue date 13-Aug-2015

Safety Data Sheet

Version 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product Identifier

Product name LOCKFORMER GALV-OFF
Chemical name 7-4357-1

Other means of identification

Product code FG 431-2241-3
Synonyms Galv-Off

Recommended use of the chemical and restrictions on use

Recommended Use Remover of galvanizing buildup.
Uses advised against See directions for use on product's label.

Details of the supplier of the safety data sheet

Supplier Address	Manufacturer Address
Mestek Machinery	Chase Products Co.
5480 6th Street SW	2727 Gardner Road
Cedar Rapids, IA 52404	Broadview, IL 60155
319-364-9181	708-273-1121

Emergency Telephone Number

Company Phone Number 708-865-1000
24 Hour Emergency Phone Number 1-800-255-3924

2. Hazards Identification

Classification

Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
carcinogenicity	Category 1A
Aspiration toxicity	Category 1
FLAMMABLE AEROSOLS	Category 1
Gases Under Pressure	liquefied gas

Label Elements

EMERGENCY OVERVIEW

DANGER

hazard statements

Toxic if inhaled
May cause cancer
May be fatal if swallowed and enters airways
EXTREMELY FLAMMABLE AEROSOL
Contains gas under pressure; may explode if heated



Appearance Greenish-blue liquid

Physical State Aerosol

Odor Petroleum hydrocarbon odor.

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves, protective clothing, eye protection and face protection.
 Avoid breathing fumes, mist, vapors or spray.
 Use only outdoors or in a well-ventilated area
 Keep away from heat, sparks, open flames and hot surfaces. — No smoking
 Do not spray on an open flame or other ignition source
 Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment: See additional cautionary statements on this label.
 Call a POISON CENTER or doctor/physician
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Immediately call a POISON CENTER or doctor
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

- Toxic to aquatic life with long lasting effects
 - Toxic to aquatic life
- No information available

3. Composition/information on Ingredients

Synonyms Galv-Off.
Chemical Family MIXTURES.
Formula 7-4357-1

Chemical name	CAS No	weight-%	Trade secret
Hydrotreated Heavy Naphthenic Oil	64742-52-5	35-40	*
Petroleum distillates, hydrotreated light	64742-47-8	35-40	*
Propane	74-98-6	15-20	*
n-butane	106-97-8	5-10	*
Ethylbenzene	100-41-4	<1	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye Contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
inhalation	If overcome by vapor, move person to fresh air. If person is not breathing, call 911 or an ambulance, then provide artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
INGESTION	Ingestion from an aerosol product is unlikely to occur. Contains petroleum distillates. Harmful if swallowed. If accidentally swallowed, do not induce vomiting, call physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Acute: Prolonged inhalation of concentrated vapor or mist may cause headaches, dizziness and nausea. Prolonged and repeated contact with skin may cause irritation and reddening. Contact with eyes causes irritation.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Contains petroleum distillates, do not induce vomiting because of aspiration pneumonia hazard.
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5. Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO2 or water spray.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

This product is under pressure. Water spray may be used to cool cans in the vicinity of fire or excessive heat to prevent the explosion of the cans.

Hazardous combustion products Thermal decomposition may release carbon monoxide and carbon dioxide.

Explosion data

Sensitivity to Mechanical Impact Contents under pressure. This product is extremely flammable. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Sensitivity to Static Discharge Keep away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use in well-ventilated area ONLY. NOTICE: Reports have associated repeated and prolonged occupational over exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. To avoid breathing vapor or spray mist open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air or wear an appropriate, properly
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fitted respirator (NIOSH approved), or leave the area. NOTE: Follow respirator manufacturer's instructions carefully for respirator use.

For emergency responders Remove all sources of ignition.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Provide adequate ventilation to area being treated. Soak up spills with chemically inert, absorbent material.

Methods for cleaning up Clean contaminated surface thoroughly.

7. Handling and Storage

Precautions for safe handling

Advice on safe handling Handle as an extremely flammable material. Avoid contact with skin, eyes and clothing. Store cans in a cool, dry place away from heat and open flame.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). **AEROSOL STORAGE LEVEL III (NFPA-30B).**

Incompatible Materials Avoid heat, open flame and contact with strong acids, strong bases and strong oxidizers.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines See occupational exposure limits listed below.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Propane 74-98-6	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³
n-butane 106-97-8	STEL: 1000 ppm	(vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	TWA: 800 ppm TWA: 1900 mg/m ³
Xylenes (o-, m-, p- isomers) 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³	-
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³

Appropriate engineering controls

Engineering controls Use with adequate general or local exhaust ventilation. Use in a well-ventilated area only .

Individual protection measures, such as personal protective equipment

Eye/face Protection Conventional eyeglasses to guard against splashing.

Skin and Body Protection

Neoprene or vinyl gloves required.

Respiratory protection

Use in well-ventilated area ONLY. NOTICE: Reports have associated repeated and prolonged occupational over exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. To avoid breathing vapor or spray mist open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air or wear an appropriate, properly fitted respirator (NIOSH approved), or leave the area. NOTE: Follow respirator manufacturer's instructions carefully for respirator use.

General hygiene considerations

Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State	Aerosol	Odor	Petroleum hydrocarbon odor.
Appearance	Greenish-blue liquid	Odor threshold	No information available
Color	Greenish-blue liquid		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not applicable	Solvent-based product.	
Melting point/freezing point	Not applicable	No information available	
Boiling point/boiling range	Naphthenic Distillated 550 °F/288 °C	No information available	
Flash Point	Not Available. This is an aerosol product for which Flame Projection is over 18 inches with 8 in flashback. Temperatures above 120 F may cause cans to burst.	No information available	
Evaporation Rate	Faster than butyl acetate	No information available	
Flammability (solid, gas)		No information available	
Flammability Limits in Air		No information available	
Upper flammability limits	Not available		
Lower Flammability Limit	Not available		
Vapor pressure		No information available	
Vapor Density		No information available	
Relative Density	0.815 concentrate	No information available	
Water solubility	Insoluble in water	No information available	
Solubility in other solvents		No information available	
Partition coefficient		No information available	
Autoignition Temperature		No information available	
Decomposition temperature		No information available	
Kinematic viscosity		No information available	
Dynamic viscosity		No information available	
Explosive properties	No information available		
Oxidizing properties	No information available		
<u>Other Information</u>			
Softening point	No information available		
Molecular weight	No information available		
VOC content (%)	62.75		
Density	6.79 b/gal		
Bulk Density	No information available		

10. Stability and Reactivity

Reactivity

Not applicable

no data available

Chemical stability

Stable.

Possibility of hazardous reactions

Temperatures above 130 °F may cause cans to burst with force.

hazardous polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Temperatures above 122 °F (50 °C).

Incompatible Materials

Avoid heat, open flame and contact with strong acids, strong bases and strong oxidizers.

Hazardous decomposition products

Thermal decomposition may yield gases like carbon monoxide and carbon dioxide.

11. Toxicological Information

Information on likely routes of exposure

Product Information

This product has not been tested as whole. See below for information on ingredients.

inhalation

no data available.

Eye Contact

no data available.

Skin contact

no data available.

INGESTION

no data available.

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
n-butane 106-97-8	-	-	= 658 g/m ³ (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

May cause skin irritation and reddening after prolonged or repeated contact with skin.

Serious eye damage/eye irritation

Irritating to eyes.

irritation

May cause skin and eye irritation.

corrosivity

Not applicable.

sensitization

No information available.

Germ Cell Mutagenicity

No information available.

carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. Contains less than 1% ethyl benzene; IARC has evaluated and classified ethyl benzene as a possibly human carcinogen (group 2B) based on sufficient evidence of carcinogenicity in animals, but inadequate evidence for cancer in exposed humans.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylbenzene 100-41-4	A3	Group 2B		X

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	Xylene has been associated with kidney and liver disorders. IARC has evaluated and classified ethyl benzene as a possibly human carcinogen (group 2B) based on sufficient evidence of carcinogenicity in animals, but inadequate evidence for cancer in exposed humans.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	13605 mg/kg
ATEmix (dermal)	5442 mg/kg
ATEmix (inhalation-gas)	933 mg/l
ATEmix (inhalation-dust/mist)	4.1 mg/l
ATEmix (inhalation-vapor)	14 mg/l

12. Ecological Information

This product contains chemicals which are listed as a marine pollutants according to DOT.

ecotoxicity

25% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Hydrotreated Heavy Naphthenic Oil 64742-52-5		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/L EC50
Petroleum distillates, hydrotreated light 64742-47-8		45: 96 h Pimephales promelas mg/L LC50 flow-through 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 2.2: 96 h Lepomis macrochirus mg/L LC50 static		4720: 96 h Daphnia magna mg/L LC50
Ethylbenzene 100-41-4	4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	1.8 - 2.4: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Propane 74-98-6	2.3
n-butane 106-97-8	2.89
Ethylbenzene 100-41-4	3.118

Other adverse effects No information available

13. Disposal Considerations

Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Pressurized container: Do not pierce or burn, even after use. Do not puncture or incinerate container. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Ethylbenzene 100-41-4		Included in waste stream: F039		

Chemical name	California Hazardous Waste Status
Ethylbenzene 100-41-4	Toxic Ignitable

14. Transport Information

DOT Limited quantity (LQ) Remover of galvanizing buildup.
UN/ID no UN1950
Proper Shipping Name Limited quantity (LQ)
Hazard Class 2.1
Marine pollutant This product contains chemicals which are listed as a marine pollutants according to DOT.

15. Regulatory information

International Inventories

TSCA All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

DSL All ingredients are listed or are excluded from listing on the DSL.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372. This information must be included in all SDSs that are copied and distributed for this material.

Chemical name	CAS No	weight-%	SARA 313 - Threshold Values %
Ethylbenzene - 100-41-4	100-41-4	<1	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard yes

Chronic Health Hazard	yes
Fire Hazard	yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethylbenzene 100-41-4	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethylbenzene - 100-41-4	carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Propane 74-98-6	X	X	X
n-butane 106-97-8	X	X	X
Ethylbenzene 100-41-4	X	X	X

U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. Other information

NFPA	Health Hazards 2	Flammability 4	Instability 1	Physical and chemical properties Not applicable
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HMIS	Health Hazards 2*	Flammability 4	Physical Hazards 1	Personal Protection B
<i>Chronic Hazard Star Legend</i>	<i>See Section 11: TOXICOLOGICAL INFORMATION</i>			

Prepared by Regulatory Department
Issue date 13-Aug-2015
Revision note
This SDS supersedes a previous MSDS dated November 24, 2010.

Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet