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Version 1.09

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** 80-112 SEIZE RELEASE HI -PERFORMANCE ANTI-SEIZE COMPOUND**Recommended use of the chemical
and restrictions on use****Product code** F00521**Product Type** Extremely flammable aerosol
Synonyms None**Supplier's details****Recommended Use** ANTI-SEIZE COMPOUND.
Uses advised against No information available**Manufactured For:**
Kimball Midwest
4800 Roberts Rd.
Columbus, OH 43228**Emergency telephone number**
Chemical Emergency Phone Chemtrec 1-800-424-9300
Number
Company Emergency Phone 1800-233-1294
Number

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements

Causes skin irritation
Causes serious eye irritation
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness
May cause damage to central nervous system through prolonged or repeated exposure.
May be fatal if swallowed and enters airways
Extremely flammable aerosol
Contains gas under pressure; may explode if heated



Appearance opaque

Physical state Aerosol

Odor Solvent

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves
Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/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
IF IN EYES: 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
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
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)

None

Other information

- Toxic to aquatic life with long lasting effects

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
METHYL ACETATE	79-20-9	30-40
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	20-30
NAPHTHENIC OIL, SEVERELY HYDROT	64742-52-5	10-20
HYDROCARBON SOLVENT	64742-96-7	1-10
TOLUENE	108-88-3	1-10
ALUMINUM POWDER	7429-90-5	1-5
CASTOR OIL	8001-79-4	1-5
GRAPHITE	7782-42-5	1-5
METHANOL	67-56-1	0.1-1.0

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

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Avoid contact with eyes, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
Skin contact	Wash skin with soap and water. Get medical attention if irritation persists.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed

Main Symptoms	May cause skin irritation. Causes skin irritation. May cause respiratory irritation. Harmful if swallowed. Drowsiness. Dizziness. Difficulty breathing. Inhalation causing Central Nervous System effects.
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Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water fog. Dry chemical. Carbon dioxide (CO2). Cool containers / tanks with water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Flammable or extremely flammable aerosol. Container may burst in fire.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

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. Use shielding to protect fire-fighters from bursting containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation.
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Environmental precautions

Environmental precautions	Report spills as required by local and federal regulations.
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Methods and materials for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Contain liquid and collect with an inter,non-combustible material.
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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Avoid skin contact. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.
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Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
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Incompatible products	Store away from strong oxidizers and acids.
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Aerosol Level	2
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
METHYL ACETATE 79-20-9	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 610 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 760 mg/m ³	IDLH: 3100 ppm TWA: 200 ppm TWA: 610 mg/m ³ STEL: 250 ppm STEL: 760 mg/m ³
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6: TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6: IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8: TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5: TWA: 800 ppm TWA: 1900 mg/m ³
TOLUENE 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m ³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³
ALUMINUM POWDER 7429-90-5	TWA: 1 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al
GRAPHITE 7782-42-5	TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust
METHANOL 67-56-1	STEL: 250 ppm TWA: 200 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures

Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection	Chemical resistant apron. Protective gloves.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol	Odor	Solvent
Appearance	opaque	Odor Threshold	No information available
Color	dark gray		
Property	Values	Remarks • Methods	
pH	No information available		
Melting/freezing point	No information available		
Boiling point/boiling range	No information available		
Flash Point	-104.4 °C / -156 °F	Based on propellant	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limits in Air			
upper flammability limit	No information available		
lower flammability limit	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	0.836		
Water solubility	Practically insoluble		
Partition coefficient: n-octanol/water	No information available	Not applicable	
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Viscosity	No information available		
Explosive properties	No information available		

Other information

VOC Content(%)	37.14
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10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong oxidizers and acids.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
Eye contact	Contact with eyes may cause irritation.
Skin contact	Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.
Ingestion	Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL ACETATE 79-20-9	> 5000 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 ppm (Rat) 4 h
HYDROCARBON SOLVENT 64742-96-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
TOLUENE 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
METHANOL 67-56-1	= 6200 mg/kg (Rat)	-	= 22500 ppm (Rat) 8 h

Information on toxicological effects

Symptoms	Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. Contact with eyes may cause irritation. Irritating to skin. Prolonged or repeated exposure may cause dermatitis. Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Eye damage/irritation	Irritating to eyes.
Sensitization	No information available.
Germ Cell Mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has evaluated a listed ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
TOLUENE 108-88-3	-	Group 3	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA: (Occupational Safety & Health Administration)
X - Present

Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ systemic toxicity (single exposure)	causes damage to central nervous system and respiratory system.
Specific target organ systemic toxicity (repeated exposure)	May cause damage to organs through prolonged or repeated exposure.
Chronic toxicity	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Prolonged skin contact may defat the skin and produce dermatitis. May cause adverse liver effects.

Target Organ Effects	Central nervous system, Central Vascular System (CVS), Eyes, Kidney, Liver, Respiratory system, Skin.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral)	75188 mg/kg
ATEmix (dermal)	22175 mg/kg
ATEmix (inhalation-gas)	787027 mg/l
ATEmix (inhalation-dust/mist)	376.7 mg/l
ATEmix (inhalation-vapor)	48363 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
METHYL ACETATE 79-20-9	120 mg/L EC50 Desmodesmus subspicatus 72h	250 - 350 mg/L LC50 Brachydanio rerio 96h static 295 - 348 mg/L LC50 Pimephales promelas 96h flow-through	-	1026.7 mg/L EC50 Daphnia magna 48h
NAPHTHENIC OIL, SEVERELY HYDROT 64742-52-5	-	5000 mg/L LC50 Oncorhynchus mykiss 96h	-	1000 mg/L EC50 Daphnia magna 48h
TOLUENE 108-88-3	433 mg/L EC50 Pseudokirchneriella subcapitata 96h 12.5 mg/L EC50 Pseudokirchneriella subcapitata 72h static	11.0 - 15.0 mg/L LC50 Lepomis macrochirus 96h static 14.1 - 17.16 mg/L LC50 Oncorhynchus mykiss 96h static 15.22 - 19.05 mg/L LC50 Pimephales promelas 96h flow-through 5.89 - 7.81 mg/L LC50 Oncorhynchus mykiss 96h flow-through 50.87 - 70.34 mg/L LC50 Poecilia reticulata 96h static 12.6 mg/L LC50 Pimephales promelas 96h static 28.2 mg/L LC50 Poecilia reticulata 96h semi-static 5.8 mg/L LC50 Oncorhynchus mykiss 96h semi-static 54 mg/L LC50 Oryzias latipes 96h static	-	5.46 - 9.83 mg/L EC50 Daphnia magna 48h Static 11.5 mg/L EC50 Daphnia magna 48h
METHANOL 67-56-1	-	13500 - 17600 mg/L LC50 Lepomis macrochirus 96h flow-through 18 - 20 mL/L LC50 Oncorhynchus mykiss 96h static 19500 - 20700 mg/L LC50 Oncorhynchus mykiss 96h flow-through 28200 mg/L LC50 Pimephales promelas 96h flow-through 100 mg/L LC50 Pimephales promelas 96h static	-	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
METHYL ACETATE 79-20-9	0.18
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	2.8
TOLUENE 108-88-3	2.65
METHANOL 67-56-1	-0.77

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods

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

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground

CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA

UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG

UN1950, AEROSOLS, 2.1, LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
METHYL ACETATE	X	X	X	X	X	X	X	X
PROPANE/ISOBUTANE/N-BUTANE	X	X	X	Not listed	X	X	X	X
NAPHTHENIC OIL, SEVERELY HYDROT	X	X	X	X	X	X	X	X
HYDROCARBON SOLVENT	X	X	X	Not listed	X	X	X	X
TOLUENE	X	X	X	X	X	X	X	X
ALUMINUM POWDER	X	X	X	Not listed	X	X	X	X
CASTOR OIL	X	X	X	Not listed	X	X	X	X
GRAPHITE	X	X	X	Not listed	X	X	X	X
METHANOL	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
TOLUENE - 108-88-3	108-88-3	1-10	1.0
ALUMINUM POWDER - 7429-90-5	7429-90-5	1-5	1.0
METHANOL - 67-56-1	67-56-1	0.1-1.0	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

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
TOLUENE 108-88-3	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	Extremely Hazardous Substances RQs	RQ
TOLUENE 108-88-3	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
METHANOL 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
TOLUENE - 108-88-3	Developmental Female Reproductive
METHANOL - 67-56-1	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
METHYL ACETATE 79-20-9	X	X	X
TOLUENE 108-88-3	X	X	X
ALUMINUM POWDER 7429-90-5	X	X	X
GRAPHITE 7782-42-5	X	X	X
METHANOL 67-56-1	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

NFPA Health Hazard 2 Flammability 4 Instability 0 Physical and chemical hazards -
HMIS Health Hazard 2* Flammability 4 Physical Hazard 1 Personal protection B
Chronic Hazard Star Legend Chronic Health Hazard Repeated or prolonged exposure may cause central nervous system damage

Prepared By Regulatory Affairs
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No information available

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet