SAFETY DATA SHEET



Seize Release Anti-Seize Compound

Section 1. Identification

GHS product identifier

: 80-114 Seize Release Anti-Seize Compound

Other means of identification

: Not available.

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

Not available.

Supplier's details : Kimball Midwest

4800 Roberts Road Columbus, OH 43228 Phone: 800-233-1294

Emergency telephone

number

: CHEMTREC, U.S.: 1-800-424-9300

Section 2. Hazards identification

For this product, the ignition distance test and the flammability test do not apply. Therefore, the final product is non-flammable.

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: GASES UNDER PRESSURE - Liquefied gas

GHS label elements

Hazard pictograms



Signal word : Warning

Hazard statements : Contains gas under pressure; may explode if heated.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

Prevention : Not applicable.

Response : Not applicable.

Storage : Protect from sunlight. Store in a well-ventilated place.

Disposal : Not applicable.

Hazards not otherwise : None known.

classified



Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of : Not available.
identification

CAS number/other identifiers

CAS number : Not applicable.

Product code : SP-50334

Ingredient name	%	CAS number	Pure Substance Classification
1,1-Difluoroethane	1 - 5		FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contactIngestionNo known significant effects or critical hazards.No known significant effects or critical hazards.

Over-exposure signs/symptoms



Section 4. First aid measures

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use dry chemical, CO₂ or foam.

: None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: No specific fire or explosion hazard.

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide

halogenated compounds

carbonyl halides metal oxide/oxides

Special protective actions for fire-fighters

: No special measures are required.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).



Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls

Environmental exposure controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eve/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection



Section 8. Exposure controls/personal protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Soft solid.]

Color : Aluminum.

Odor : Petroleum

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Open cup: 215.56°C (420°F) [Cleveland.]

Burning time : Not available.
Burning rate : Not available.
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive : Not available.

(flammable) limits

Vapor pressure: Not available.Vapor density: Not available.

Relative density : 1.1

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Partition coefficient: n- : Not available.

octanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.Viscosity: Not available.



Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Do not heat above flash point.

Incompatible materials

: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure

: Ingestion.

Potential acute health effects

Eye contact

: No known significant effects or critical hazards.

Inhalation

: Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact

: No known significant effects or critical hazards.



Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.



Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950
UN proper shipping name	Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane)	Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane)	Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane)
Transport hazard class(es)	2.1	2.1	2.1
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	Remarks Limited Quantity Exemption	Remarks Limited Quantity Exemption	Remarks Limited Quantity Exemption

AERG: 126

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations

: United States inventory (TSCA 8b): All components are listed or exempted. Clean Air Act (CAA) 112 regulated flammable substances: 1,1-Difluoroethane

Clean Air Act Section 112 (b) Hazardous Air **Pollutants (HAPs)**

: Not listed

Clean Air Act Section 602 Class I Substances

: Not listed



Section 15. Regulatory information

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

DEA List II Chemicals

: Not listed

Not listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Sudden release of pressure

Composition/information on ingredients

No products were found.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Aluminium	7429-90-5	1 - 5
Supplier notification	Aluminium	7429-90-5	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: 1,1-Difluoroethane; Natural graphite; Aluminium

New York

: None of the components are listed.

New Jersey

: The following components are listed: Distillates (petroleum), hydrotreated heavy

paraffinic; 1,1-Difluoroethane; Natural graphite; Aluminium

Pennsylvania

: The following components are listed: Natural graphite; Aluminium

California Prop. 65

No products were found.

International regulations

International lists

: Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

Chemical Weapons

Convention List Schedule

I Chemicals

: Not listed

Chemical Weapons

Convention List Schedule

II Chemicals

: Not listed

Chemical Weapons

Convention List Schedule

III Chemicals

: Not listed



Section 16. Other information

History

Date of issue mm/dd/yyyy : 09/30/2014

Date of previous issue : 03/30/2014

Version : 2

Revised Section(s) : 2, 3, 14, 16.

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

