

VFD-EXP3122 SAFETY DATA SHEET

1. Identification of the substance or preparation and of the company / undertaking

- 1.1 Identification of the substance or preparation:
Synonyms ☐ Tall Oil Fatty Acid Imidazoline

CAS No.	Mixture	NFPA code	1-0-0	
EC index No.	N.A.	Molecular weight	N.A.	
EINECS No.	N.A.	Formula	N.A.	
RTECS No.	N.A.			

- 1.2 Use of the substance or the preparation:
Construction material additive and corrosion inhibitor

- 1.3 Company/undertaking identification:
Valence Drilling Fluids, LLC
PO Box 7174
Edmond, OK 73083
U.S.A.
(405) 285-6454 (8 AM - 5 PM Monday to Friday, CST)

- 1.4 Telephone number for emergency:
(800) 424-9300
Chemtrec (800) 424-9300 (Within Continental U.S.)
Chemtrec (703) 527-3887 (Outside Continental U.S.)

2. Hazards identification

Physical hazards: Not Classified
Health Hazards: Eye Irritate 2 – H319 Skin Sensitivity 1 H317
Environmental Hazards: Aquatic Chronic 3 H412
Odor: Amine-like
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard

Label elements



Signal word: Warning, Danger

Hazard statements:
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Causes respiratory tract, eye and skin irritation. May cause allergic respiratory and skin reaction.

Irritating to the eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Precautionary statement

Precautionary statements P261 Avoid breathing vapor/ spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Fatty acids, tall-oil, reaction products with diethylenetriamine

Prevention	Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed.
Response	Observe good industrial hygiene practices. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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.
Storage	Store away from incompatible materials. Store in dry place. Store in a closed container.
Disposal	Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations

3. Composition / information on ingredients

Chemical characterization: Mixture

Name	CAS No.	Percent
Tall Oil Fatty Acid Product with diethylenetriamine	61790-69-0	30
Distillates, Hydrotreated Light Naphthenic	64742-53-6	70

4. First aid measure

- 4.1 Eye contact:
- If irritation persists: consult a doctor/medical service
- Rinse with water
- 4.2 Skin contact:
- If irritation persists: consult a doctor/medical service
- Rinse with water
- Soap may be used
- Consult a doctor/medical service
- 4.3 After inhalation:
- If breathing problems develop: consult a doctor/medical service
- Remove the victim into fresh air
- Unconscious: maintain adequate airway and respiration
- 4.4 After ingestion:
- If you feel unwell: consult a doctor/medical service
- Never give water to an unconscious person

5. Fire-fighting measures

- 5.1 Extinguishing media:
-Suitable extinguishing media: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
-Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.
- 5.2 Special hazards arising from the substance or mixture:
-Specific hazards: Containers can burst violently or explode when heated, due to excessive pressure build-up.
-Hazardous combustion products: Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
- 5.3. Advice for firefighters:
-Protective actions during firefighting: Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water

spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

-Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

6. Accidental release measure

6.1 Personal protection/precautions:

See Section 8

6.2 Environmental precautions:

- Avoid discharge into drains or watercourses or onto ground. Avoid discharge to the aquatic environment. Contain released substance, pump over in suitable containers
- Plug the leak, cut off the supply

6.3 Methods of cleaning up:

- Shovel solid spill into closing drums
- Clean contaminated surfaces with an excess of water
- Wash clothing and equipment after handling

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

7. Handling and storage

7.1 Handling:

- Observe normal hygiene standards
- Remove contaminated clothing immediately
- Clean contaminated clothing

7.2 Storage:

- Keep container tightly closed
- Store at a cool and dry place
- Meet the legal requirements
- Provide the tank with earthing
- Keep away from: heat sources, ignition sources, oxidizing agents

Storage temperature	: <40	°C		
Quantity limits	: N.A.	kg		
Storage life	: Stable aqueous solution			
Materials for packaging	:			
- suitable: plastic and metal				
- to avoid: no data available				

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure controls / Personal protection

8.1 Exposure limit values

TLV-TWA	: Not listed
TLV-STEL	: Not listed
TLV-Ceiling	: Not listed
OES-LTEL	: Not listed
OES-STEL	: Not listed
MEL-LTEL	: Not listed
MEL-STEL	: Not listed
MAK	: Not listed
TRK	: Not listed
MAC-TGG 8 h	: Not listed
MAC-TGG 15 min.	: Not listed
MAC-Ceiling	: Not listed
VME-8 h	: Not listed
VLE-15 min.	: Not listed
GWBB-8 h	: Not listed
GWK-15 min.	: Not listed
Momentary value	: Not listed

EC : Not listed

EC-STEL : Not listed

Sampling methods:

- No data available

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1. Environmental exposure controls:

- see heading 13

8.3 Personal protection:

Observe very strict hygiene – avoid contact. Keep container tightly closed. Do not eat, drink or smoke during work

8.3.1 Hand protection:

- Gloves

Suitable materials:

No data available

- Breakthrough time:

N.D.

8.3.2 eye protection:

- Safety glasses

8.3.3 skin protection:

- Protective clothing

Suitable materials:

No data available

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C)

: Dark-colored liquid

Odor

: Typical-amine

Color

: Brown

9.2 Important health, safety and environmental information:

pH value

: N.A.

Boiling point/boiling range

: >N.D. °C

Flashpoint

: >N.D. °C

MCIT (Minimum Cloud Ignition Temperature)

: Not expected to be flammable

MIE (Minimum Ignition Energy)

: N.D. mJ

Relative density (at 20°C)

: N.D.

Water solubility

: Soluble

Relative vapor density

: N.D.

Viscosity

: N.D.

Partition coefficient n-octanol/water

: N.D.

Evaporation rate

ratio to butyl acetate

: N.A.

ratio to ether

: N.A.

10. Stability and reactivity

10.1. Reactivity

Not Reactive

10.2. Chemical stability:

Stable under normal conditions

10.3. Possibility of hazardous reactions:

No data available

10.4. Conditions to avoid/reactivity:

N/A

10.5. Materials to avoid:

Oxidizing agents

10.6. Hazardous decomposition products:

Upon combustion CO and CO₂ are formed

11. Toxicological information

11.1 Acute toxicity

LD50 oral rat : N.D.

mg/kg

LD50 dermal rabbit : N.D.

mg/kg

LD50 dermal rabbit : N.D.

mg/kg

LD50 inhalation rat : N.D.

mg/l/4 h

LD50 inhalation rat : N.D.

ppm/4 h

11.2 Chronic toxicity:

EC carc. cat.

: Not listed

EC muta. cat.

: Not listed

EC repr. cat. : Not listed
 Carcinogenicity (TLV) : Not listed
 Carcinogenicity (MAC): Not listed
 Carcinogenicity (VME) : Not listed
 Carcinogenicity (GWBB) : Not listed
 Carcinogenicity (MAK) : Not listed
 Mutagenicity (MAK) : Not listed
 Teratogenicity (MAK) : Not listed
 IARC classification : Not listed

11.3 Routes of exposure: ingestion, inhalation, eye and skin

11.4 Acute effects/symptoms:

- AFTER INHALATION
- Coughing
- Respiratory difficulties
- AFTER SKIN CONTACT
- ON HEATING:
- Burns

11.5 Chronic effects:

- Not listed in carcinogenicity class (IARC, EC, TLV, MAK)
- Not listed in mutagenicity class (EC, MAK)
- Not classified as toxic to reproduction (EC)

12. Ecological information

12.1. Toxicity

- Toxicity Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

- Biodegradation Inherently biodegradable.

12.3. Bioaccumulative potential

- Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

- Mobility No data available.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

- Other adverse effects None known.

13. Disposal considerations

13.1 Provisions relating to waste:

- No data available

13.2 Disposal methods:

- Recycle/reuse
- Substance must not be discharged into the sewer
- Do not discharge into surface water

13.3 Packaging:

Waste material code packaging (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 01 (paper and cardboard packaging), 15 01 02 (Plastic packaging)

14. Transport information

14.1 Special precautions in connection with Transport: not restricted for any mode of international transport

14.2 Classification of the substance in compliance with UN Recommendations UN-number

CLASS	:	-
SUB RISKS	:	
PACKING	:	
PROPER SHIPPING NAME	:	

14.3 ADR (transport by road)

CLASS	:	NOT SUBJECT
PACKING	:	
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	
DANGER LABEL PACKAGES	:	

14.4 RID (transport by rail)

CLASS	:	NOT SUBJECT
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PACKING	:	
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	
DANGER LABEL PACKAGES	:	
14.5 ADNR (transport by inland waterways)	:	
CLASS	:	NOT SUBJECT
PACKING	:	
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	
DANGER LABEL PACKAGES	:	
14.6 IMDG (maritime transport)	:	
CLASS	:	NOT SUBJECT
SUB RISKS	:	
PACKING	:	
MFAG	:	
EMS	:	
MARINE POLLUTANT	:	
14.7 ICAO (air transport)	:	
CLASS	:	NOT SUBJECT
SUB RISKS	:	
PACKING	:	
PACKING INSTRUCTIONS PASSENGER AIRCRAFT	:	
PACKING INSTRUCTIONS CARGO AIRCRAFT	:	

15. Regulatory information

15.1 Safety, Health and Environmental Regulations/legislation specific for the substance or mixture:

-National regulations Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

-EU legislation:

-Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18
December 2006 concerning the Registration, Evaluation, Authorization and Restriction of
Chemicals (REACH) (as amended). COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16
December 2008 on classification, labelling and packaging of substances and mixtures (as
amended).

-Inventories

EU - EINECS/ELINCS
None of the ingredients are listed or exempt.
EU - REACH Not registered.
Canada - DSL/NDL
All the ingredients are listed or exempt.
DSL
US - TSCA
All the ingredients are listed or exempt.
Australia - AICS
All the ingredients are listed or exempt.
Japan - ENCS
Not listed.
Korea - KECI
All the ingredients are listed or exempt.
China - IECSC
All the ingredients are listed or exempt.
China - IECIC Not available.
Philippines – PICCS
All the ingredients are listed or exempt.
New Zealand - NZIOC
All the ingredients are listed or exempt.
Taiwan - TCSI
All the ingredients are listed or exempt.

16. Other information

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 guidance 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.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
(*) = INTERNAL CLASSIFICATION (NFPA)

Exposure limits:

TLV: ThresholdLimitValue-ACGIHUSA2004
OES: OccupationalExposureStandards-UnitedKingdom2003

MEL: MaximumExposureLimits-UnitedKingdom2003
MAK: MaximaleArbeitsplatzkonzentrationen-Germany2002
TRK: TechnischeRichtkonzentrationen-Germany2002
MAC: Maximaleaanvaardeconcentratie-theNetherlands2004
VME: ValeurslimitesdeMoyenned'Exposition-France1999
VLE: Valeurslimitesd'Expositionàcourtterme-France1999
GWBB: Grenswaardeberoepsmatigeblootstelling-Belgium2002
GWK: Grenswaardekortstondigeblootstelling-Belgium2002
EC: Indicativeoccupationalexposurelimitvalues-directive2000/39/EC