

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 11/9/2018 Revision date: 6/6/2023 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture Trade name : 1FR

1.2. Recommended use and restrictions on use

Recommended use : Penetrating liquid

Restrictions on use No additional information available

1.3. Supplier

Supplier

FirstPower Group, LLC 8941 Dutton Drive Twinsburg, Ohio 44087 USA

T+1 330-963-2050

1.4. Emergency telephone number

Emergency number : Call Chemtrec: +1-800-424-9300/+1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Gases under pressure Compressed gas H280 Contains gas under pressure; may explode if heated

Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation

Aspiration hazard Category 1 H304 May be fatal if swallowed and enters airways Hazardous to the aquatic environment - Chronic Hazard Category 3 H412 Harmful to aquatic life with long lasting effects

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) H280 - Contains gas under pressure; may explode if heated

H304 - May be fatal if swallowed and enters airways

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US) : P264 - Wash hands thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor.

P331 - Do NOT induce vomiting.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P405 - Store locked up.

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of § 1910.1200

| Name | Product identifier | % | GHS US classification |
|---|---------------------|--------------|---|
| Distillates (petroleum), hydrotreated light | CAS-No.: 64742-47-8 | > 50 - < 100 | Asp. Tox. 1, H304 |
| Didecyl oxalate | CAS-No.: 20441-64-9 | > 10 - ≤ 50 | Not classified |
| Decan-1-ol | CAS-No.: 112-30-1 | < 20 | Eye Irrit. 2A, H319 Aquatic Chronic 2, H411 |
| Corn oil | CAS-No.: 8001-30-7 | < 10 | Not classified |
| Nitrogen (Propellant) | CAS-No.: 7727-37-9 | < 10 | Press. Gas (Comp.), H280 |
| Benzene-1,2,4,5-tetracarboxylic acid | CAS-No.: 89-05-4 | < 5 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |
| p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) | CAS-No.: 104-15-4 | < 1 | Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT SE 3, H335 |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Get medical attention if symptoms occur.

First-aid measures after 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.

6/6/2023 (Revision date) US - en 2/12

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

First-aid measures after ingestion

: If swallowed, seek medical advice immediately and show this container or label. Rinse mouth out with water. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation

: May cause shortness of breath, tightness of the chest, a sore throat and cough,

Symptoms/effects after skin contact

: Prolonged or repeated contact may cause skin to become dry.

Symptoms/effects after eye contact

Causes serious eye irritation. Redness. Itching. Lacrimation. Blurred vision.

Symptoms/effects after ingestion

Ingestion may cause nausea, vomiting and diarrhea. Abdominal pain. Aspiration of the product

into the lungs may cause very serious pneumonia.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

: Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide (CO2). Use extinguishing

agent suitable for surrounding fire.

Unsuitable extinguishing media

: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard

: Burning produces stinking and toxic fumes. In case of fire and/or explosion do not breathe

fumes.

Explosion hazard

Contains gas under pressure; may explode if heated.

Hazardous decomposition products in case of fire

: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Formaldehyde.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions

: Evacuate the danger area. Move containers from fire area if it can be done without personal risk. Exercise caution when fighting any chemical fire. Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

: Wear recommended personal protective equipment.

Emergency procedures

: Evacuate unnecessary personnel. Ventilate spillage area. Avoid breathing spray. Do not get in eyes, on skin, or on clothing. No action shall be taken without appropriate training or involving

any personal risk.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures

: Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters.

6/6/2023 (Revision date) US - en 3/12

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.3. Methods and material for containment and cleaning up

For containment

: Stop leak, if possible without risk. Do not touch or walk on the spilled product. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up

: Move containers from spill area. Leave the product to evaporate. Absorb remaining liquid with sand or inert absorbent and remove to safe place. Clean area with detergent and water after spill clean-up. Prevent entry to sewers and public waters. Keep in suitable, closed containers for disposal. Dispose of as hazardous waste.

Other information

 Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Ensure good ventilation of the work station. Avoid breathing spray. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid release to the environment. Pressurized container: Do not pierce or burn, even after use. Empty containers retain product residue and can be hazardous.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a well-ventilated place. Keep cool. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store away from other materials. Refer to Section 10 on Incompatible Materials. Keep away from food, drink and animal feedingstuffs. Do not store in unlabelled containers. Store in accordance with local, regional, national or international regulation.

Incompatible products Incompatible materials

Strong oxidizing agents.Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1FR

No additional information available

Didecyl oxalate (20441-64-9)

No additional information available

Corn oil (8001-30-7)

No additional information available

Distillates (petroleum), hydrotreated light (64742-47-8)

No additional information available

6/6/2023 (Revision date) US - en 4/12

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Nitrogen (7727-37-9) | | |
|--|--|--|
| USA - ACGIH - Occupational Exposure Limits | | |
| Local name | Nitrogen | |
| Remark (ACGIH) | TLV® Basis: Simple Asphyxiant | |
| Regulatory reference | ACGIH 2023 | |
| Benzene-1,2,4,5-tetracarboxylic acid (89-05-4) | | |
| No additional information available | | |
| p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) (104-15-4) | | |
| No additional information available | | |
| Decan-1-ol (112-30-1) | | |
| No additional information available | | |
| Monitoring methods | | |
| Monitoring methods | Refer to all applicable national, international and local regulations or provisions. | |

8.2. Appropriate engineering controls

| Appropriate engineering controls | : Handle in accordance with good industrial hygiene and safety procedures. Provide local exhaust |
|----------------------------------|--|
| | or general room ventilation. Ensure exposure is below occupational exposure limits (where |
| | available). Avoid all unnecessary exposure. |
| Environmental exposure controls | : Avoid release to the environment. Technical onsite conditions and measures to reduce or limit |
| | discharges, air emissions and releases to soil. |

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment. Personal protective equipment should be chosen according to the NIOSH standards and in discussion with the supplier of the protective equipment.

Hand protection:

Chemical resistant gloves (according to NIOSH standard). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Selection of protective gloves should be made based on the type of task performed.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing. Skin protection appropriate to the conditions of use should be provided

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. All respirators must conform to specifications for efficiency and performance indicated by OSHA Standard 29 CFR 1910.134 and NIOSH Standards

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas
Appearance : Aerosol.
Color : light yellow

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor : Slight

Odor threshold : No data available pH : No data available Melting point : No cata available
Freezing point : No data available
Boiling point : No data available

Flash point : 171 °C (340 °F, ASTM D942 Open Cup)

Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available Vapor pressure : No data available Relative vapor density at 20°C : No data available

Relative density : 0.85

Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : 2.7 mm²/s (100 °C, 212 °F)

Viscosity, dynamic : No data available Explosion limits : No data available Explosive properties : No data available Oxidizing properties : No data available Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Contains gas under pressure; may explode if heated.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization: Will not occur.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Heat or source of heat. Direct sunlight. High temperature.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Distillates (petroleum), hydrotreated light (64742-47-8) | | |
|--|--|--|
| LD50 oral rat | > 5000 mg/kg | |
| LD50 dermal rabbit | 2000 – 4000 mg/kg | |
| LC50 Inhalation - Rat | > 0.5 mg/l/4h | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Causes serious eye irritation. | |
| Respiratory or skin sensitization | : Not classified | |
| Germ cell mutagenicity | : Not classified | |
| Carcinogenicity | : Not classified | |
| Reproductive toxicity | : Not classified | |
| STOT-single exposure | : Not classified | |
| Benzene-1,2,4,5-tetracarboxylic acid (89-05-4) | | |
| STOT-single exposure | May cause respiratory irritation. | |
| p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) (104-15-4) | | |
| STOT-single exposure | May cause respiratory irritation. | |
| STOT-repeated exposure | : Not classified | |
| Aspiration hazard | : May be fatal if swallowed and enters airways. | |
| Viscosity, kinematic | : 2.7 mm ² /s (100 °C, 212 °F) | |
| Symptoms/effects after inhalation | : May cause shortness of breath, tightness of the chest, a sore throat and cough. | |
| Symptoms/effects after skin contact | : Prolonged or repeated contact may cause skin to become dry. | |
| Symptoms/effects after eye contact | : Causes serious eye irritation. Redness. Itching. Lacrimation. Blurred vision. | |
| Symptoms/effects after ingestion | : Ingestion may cause nausea, vomiting and diarrhea. Abdominal pain. Aspiration of the product into the lungs may cause very serious pneumonia. | |
| Other information | : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation. | |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects. Do not allow product to spread into the environment.

12.2. Persistence and degradability

| 1FR | | |
|--|---|--|
| Persistence and degradability | Biodegradability in water: no data available. | |
| Distillates (petroleum), hydrotreated light (64742-47-8) | | |
| Persistence and degradability | Readily biodegradable. | |
| Biodegradation | 74 % (28 d, OECD 301F) | |

12.3. Bioaccumulative potential

| 1FR | |
|---------------------------|---|
| Bioaccumulative potential | No data available concerning bioaccumulation. |

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

1FR

Ecology - soil No additional information available.

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Container under pressure. Do not drill or burn even after use. Dispose in a safe manner in

accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN1950 UN-No. (TDG) : UN1950 UN-No. (IMDG) : 1950 UN-No. (IATA) : 1950

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Aerosols
Proper Shipping Name (TDG) : AEROSOLS
Proper Shipping Name (IMDG) : AEROSOLS

Proper Shipping Name (IATA) : Aerosols, non-flammable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.2 Hazard labels (DOT) : 2.2



TDG

Transport hazard class(es) (TDG) : 2.2 Hazard labels (TDG) : 2.2



IMDG

Transport hazard class(es) (IMDG) : 2.2 Hazard labels (IMDG) : 2.2

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations



IATA

Transport hazard class(es) (IATA) Hazard labels (IATA) 2.2



14.4. Packing group

Packing group (DOT) Not applicable Packing group (TDG) Not applicable Packing group (IMDG) Not applicable Packing group (IATA) Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

: UN1950 UN-No.(DOT) DOT Packaging Exceptions (49 CFR 173.xxx) : 306 DOT Quantity Limitations Passenger aircraft/rail (49 : 75 kg

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

: 150 kg

DOT Vessel Stowage Other 25 - Protected from sources of heat.87 - Stow "separated from" Class 1 (explosives) except

Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

TDG

UN-No. (TDG) : UN1950

TDG Special Provisions : 80 - Despite section 1.17 of Part 1 (Coming into Force, Repeal, Interpretation, General

> Provisions and Special Cases), a person must not offer for transport or transport these dangerous goods unless they are in a means of containment that is in compliance with the requirements for transporting gases in Part 5 (Means of Containment), 107 - (1) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of UN1950, AEROSOLS, and UN2037, GAS CARTRIDGES, that contain

dangerous goods included in Class 2.1 or Class 2.2 and that are transported on a road vehicle, a railway vehicle or a vessel on a domestic voyage, if the aerosols or gas cartridges have a

capacity less than or equal to 50 mL.

(2) Subsection (1) does not apply to self-defence spray.

Explosive Limit and Limited Quantity Index : 1L : E0 Excepted quantities (TDG) Passenger Carrying Road Vehicle or Passenger

Carrying Railway Vehicle Index

: 75 L

Emergency Response Guide (ERG) Number : 126

IMDG

Special provision (IMDG) : 63, 190, 277, 327, 344, 381, 959

6/6/2023 (Revision date) US - en 9/12

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Limited quantities (IMDG) : SP277 Excepted quantities (IMDG) : E0

Packing instructions (IMDG) : P207, LP200
Packing provisions (IMDG) : PP87, L2

EmS-No. (Fire) : F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES

EmS-No. (Spillage) : S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)

Stowage category (IMDG) : None
Stowage and handling (IMDG) : SW1, SW22
Segregation (IMDG) : SG69

IATA

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg

Special provision (IATA) : A98, A145, A167, A802

ERG code (IATA) : 2L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Didecyl oxalate CAS-No. 20441-64-9 > 10 − ≤ 50%

15.2. International regulations

CANADA

Didecyl oxalate (20441-64-9)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Corn oil (8001-30-7)

Listed on the Canadian DSL (Domestic Substances List)

Distillates (petroleum), hydrotreated light (64742-47-8)

Listed on the Canadian DSL (Domestic Substances List)

Nitrogen (7727-37-9)

Listed on the Canadian DSL (Domestic Substances List)

Benzene-1,2,4,5-tetracarboxylic acid (89-05-4)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) (104-15-4)

Listed on the Canadian DSL (Domestic Substances List)

Decan-1-ol (112-30-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Corn oil (8001-30-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Distillates (petroleum), hydrotreated light (64742-47-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Nitrogen (7727-37-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Benzene-1,2,4,5-tetracarboxylic acid (89-05-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) (104-15-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Decan-1-ol (112-30-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 6/6/2023

Data sources : Supplier's safety documents.

Training advice : Training staff on good practice.

| Full text of H-phrases | | |
|------------------------|--|--|
| H280 | Contains gas under pressure; may explode if heated | |
| H304 | May be fatal if swallowed and enters airways | |
| H314 | Causes severe skin burns and eye damage | |
| H315 | Causes skin irritation | |
| H318 | Causes serious eye damage | |

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Full text of H-phrases | |
|------------------------|---|
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H411 | Toxic to aquatic life with long lasting effects |
| H412 | Harmful to aquatic life with long lasting effects |

| Indication of changes: | |
|------------------------|--|
| Sections 1-16. | |

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.