

# **SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

## **N-FLOW 457**

Revision Date: 29-Nov-2010

Revision Number: 3

### **1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product Identifier**

Product Name N-FLOW 457

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

Recommended Use Breaker

Uses Advised Against No information available

**Details of the supplier of the safety data sheet**

Halliburton Energy Services  
Halliburton House, Howemoss Place  
Kirkhill Industrial Estate  
Dyce  
Aberdeen, AB21 0GN  
United Kingdom

Emergency Phone Number: +44 1224 795277 or +1 281 575 5000

[www.halliburton.com](http://www.halliburton.com)

For further information, please contact

E-Mail address: [fdunexchem@halliburton.com](mailto:fdunexchem@halliburton.com)**Emergency telephone number**

+44 1224 795277 or +1 281 575 5000

**Emergency telephone \$45 - (EC)1272/2008**

<b>Europe</b>	<b>112</b>
<b>Denmark</b>	Poison Control Hotline (DK): +45 82 12 12 12
<b>France</b>	ORFILA (FR): + 01 45 42 59 59
<b>Germany</b>	Poison Center Berlin (DE): +49 030 30686 790
<b>Italy</b>	Poison Center, Milan (IT): +39 02 6610 1029
<b>Netherlands</b>	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
<b>Norway</b>	Poisons Information (NO): + 47 22 591300
<b>Poland</b>	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
<b>Spain</b>	Poison Information Service (ES): +34 91 562 04 20
<b>United Kingdom</b>	NHS Direct (UK): +44 0845 46 47

### **2. HAZARDS IDENTIFICATION**

**Classification of the substance or mixture**

REGULATION (EC) No 1272/2008

Not classified

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases mentioned in this Section, see Section 16

Classification Not Classified

## 2. HAZARDS IDENTIFICATION

**Risk Phrases** None

**Label Elements**

Not classified

**Hazard Pictograms**

**Signal Word** Not Hazardous

**Contains**

**Substances**

Glycerin triacetate

**CAS Number**

Proprietary

**Other Hazards**

None known

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Glycerin triacetate	Listed	Proprietary	60 - 100%	Not applicable	Not applicable	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

**Description of first aid measures**

**Inhalation**

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**Eyes**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Skin**

Wash with soap and water. Get medical attention if irritation persists.

**Ingestion**

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

**Most Important symptoms and effects, both acute and delayed**

No significant hazards expected.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**

Treat symptomatically

## 5. FIREFIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**

Carbon dioxide, dry chemical, foam.

**Extinguishing media which must not be used for safety reasons**

None known.

**Special hazards arising from the substance or mixture**

**Special Exposure Hazards**

Decomposition in fire may produce toxic gases.

**Advice for firefighters****Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment.

See Section 12 for additional information

**Environmental precautions**

Prevent from entering sewers, waterways, or low areas. Prevent contamination of soil.

**Methods and material for containment and cleaning up**

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

**Reference to other sections**

See Section 12 for additional information.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Avoid contact with eyes, skin, or clothing. Material is slippery underfoot.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Conditions for safe storage, including any incompatibilities**

Store away from oxidizers. Keep container closed when not in use. Store in a dry location. Store in a cool well ventilated area.

Product has a shelf life of 36 months.

**Specific End Use(s)****Exposure Scenario**

No information available

**Other Guidelines**

No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Substances	EU	UK OEL	Netherlands	France OEL	Germany MAK/TRK
Glycerin triacetate	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Glycerin triacetate	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls****Engineering Controls**

None known.

**Personal protective equipment****Respiratory Protection**

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:

Organic vapor respirator.

**Hand Protection**

Impervious rubber gloves.

**Skin Protection**

Normal work coveralls.

**Eye Protection**

Wear safety glasses or goggles to protect against exposure.

Other Precautions	None known.
Environmental Exposure Controls	No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Physical State:** Liquid  
**Odor:** Mild

**Color:** Clear colorless  
**Odor Threshold:** No information available

Property  
Remarks/ Method

Values

<b>pH:</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Freezing Point/Range (C):</b>	3°C
<b>Boiling Point/Range</b>	258°C
<b>Flash Point</b>	153°C
<b>PMCC</b>	
<b>upper flammability limit</b>	7.73%
<b>lower flammability limit</b>	1.05%
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	1.16
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	0.38
<b>Autoignition Temperature</b>	433°C
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

### Other information

<b>Molecular Weight</b>	218
<b>VOC Content (%)</b>	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable

### Chemical Stability

Stable

### Possibility of Hazardous Reactions

Will Not Occur

### Conditions to Avoid

Keep away from heat, sparks and flame.

### Incompatible Materials

Strong oxidizers.

### Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

<b>Inhalation</b>	Heated vapors may cause respiratory irritation.
<b>Eye Contact</b>	May cause mild eye irritation.
<b>Skin Contact</b>	Prolonged or repeated contact may cause skin irritation.
<b>Ingestion</b>	Large doses may cause nausea, vomiting and diarrhea.

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 1% are chronic health hazards.

## 11. TOXICOLOGICAL INFORMATION

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycerin triacetate	3000 mg/kg	> 5000 mg/kg	No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Glycerin triacetate	No information available	No information available	No information available	TLM48: 380 mg/l (Daphnia magna)

### Persistence and degradability

Readily biodegradable

### Bioaccumulative potential

Does not bioaccumulate

### Mobility in soil

No information available

### Results of PBT and vPvB assessment

No information available.

### Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### Disposal Method

#### Contaminated Packaging

Disposal should be made in accordance with federal, state, and local regulations.  
Follow all applicable national or local regulations.

## 14. TRANSPORT INFORMATION

### IMDG/IMO

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

### RID

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

### ADR

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

**14. TRANSPORT INFORMATION****IATA/ICAO**

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): Not applicable

Special Precautions for User None

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

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

EINECS Inventory This product, and all its components, complies with EINECS  
US TSCA Inventory All components listed on inventory or are exempt.  
Canadian DSL Inventory All components listed on inventory or are exempt.

**Legend**

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

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

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

Germany, Water Endangering Classes (WGK) WGK 1: Low hazard to waters.

**Chemical Safety Assessment**

No information available

**16. OTHER INFORMATION****Full text of R-phrases referred to under Sections 2 and 3**

None

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

Revision Date: 29-Nov-2010

Revision Note Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer Statement**

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**End of Safety Data Sheet**