

**Safety Data Sheet dated 10/1/2018, version 4**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. Product identifier

Mixture identification:

Trade name: DET/LUB. TORNADO

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

Recommended use:

lubricant, detergent

Uses advised against:

do not use on humans and animals

1.3. Details of the supplier of the safety data sheet

Company:

STAC PLASTIC SPRAY S.R.L. Via E. De Nicola 9/11 10036 Settimo Torinese (To) Italia.

STAC PLASTIC SPRAY S.R.L. Tel. n.. +39 011 8977566 Fax n. +39 011 8977491

Competent person responsible for the safety data sheet:

Montini Vittorino stacplas@stacplastic.com


1.4. Emergency telephone number


STAC PLASTIC SPRAY S.R.L. Tel. n.. +39 011 8977566 Fax n. +39 011 8977491


**SECTION 2: Hazards identification**


2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

 Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

 Warning, Skin Irrit. 2, Causes skin irritation.

 Warning, STOT SE 3, May cause drowsiness or dizziness.

 Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

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P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Special Provisions:

None

Contains

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

section 10.3

### SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 40% - < 50%	hydrocarbons C7 n-alkanes, isoalkanes, cyclics	EC: 927-510-4 REACH No.: 01-2119666169-27-0000	2.6/2 Flam. Liq. 2 H225 3.2/2 Skin Irrit. 2 H315 4.1/C2 Aquatic Chronic 2 H411 3.10/1 Asp. Tox. 1 H304 3.8/3 STOT SE 3 H336
>= 30% - < 40%	GPL	CAS: 68476-40-4 EC: 270-681-9 REACH No.: 01-2119486557-22-XXXX	2.5/C Compr. Gas H280 2.2/1 Flam. Gas 1 H220 DECLK (CLP)*
>= 1% - < 3%	diamine alkyl oleica dioleate	CAS: 40027-38-1 EC: 254-754-2	3.1/4/Oral Acute Tox. 4 H302 3.2/1A Skin Corr. 1A H314 4.1/A1 Aquatic Acute 1 H400

### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed  
Section 11

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Follow the doctor's instructions

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### SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:  
water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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### SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

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store in a cool, well ventilated place, away from heat, flames, sparks or other sources of ignition

keep only in the original container away from sunlight neighborhoods

avoid contact with skin and eyes, inhalation of vapours/mists/dusts.

do not use empty containers before they are cleaned.

contaminated clothing must be replaced before entering the dining areas.

at work do not eat or drink.

avoid the accumulation of electrostatic charges.

do not smoke

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

#### 7.3. Specific end use(s)

lubricant, detergent

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

TLV TWA - 400ppm-1639,26 mg/m<sup>3</sup>

TLV STEL - 500ppm-2049,08 mg/m<sup>3</sup>

VLE 8h - 2085 mg/m<sup>3</sup>-500ppm

#### DNEL Exposure Limit Values

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

Worker Professional: 300 mg/kg/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 2085 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 149 mg/kg/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

#### PNEC Exposure Limit Values

N.A.

#### 8.2. Exposure controls

##### Eye protection:

Use close fitting safety goggles, don't use eye lens.

##### Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

##### Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

##### Respiratory protection:

Use adequate protective respiratory equipment.

##### Thermal Hazards:

Do not expose to temperatures exceeding 50° c.

##### Environmental exposure controls:

None

##### Appropriate engineering controls:

None

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Spray can	--	--
Odour:	sweet of solvent	--	--
Odour threshold:	Not Relevant	--	--
pH:	Not Relevant	--	--
Melting point / freezing point:	>90°C liquid phase	--	--
Initial boiling point and boiling range:	<-20°C liquid phase	--	--
Flash point:	< 0 ° C aerosol	--	--
Evaporation rate:	Not Relevant	--	--
Solid/gas flammability:	Not Relevant	--	--
Upper/lower flammability or explosive limits:	Not Relevant	--	--
Vapour pressure:	4 bar +/- 1	--	--
Vapour density:	>2	--	--
Relative density:	0.750 kg/l +/- 0.05 (20°C)	--	--
Solubility in water:	undissolvable	--	--
Solubility in oil:	complete	--	--
Partition coefficient (n-octanol/water):	Not Relevant	--	--
Auto-ignition temperature:	(gas) > 400°C	--	--
Decomposition temperature:	Not Relevant	--	--
Viscosity:	Not Relevant	--	--
Explosive properties:	section 10.3	--	--
Oxidizing properties:	Not Relevant	--	--

#### 9.2. Other information

Properties	Value	Method:	Notes:
kinematic viscosity:	kv > 2,05 mm <sup>2</sup> /s (a 40°C)	--	--
Miscibility:	no in water	--	--
Fat Solubility:	complete	--	--
Conductivity:	Not Relevant	--	--
Substance Groups relevant properties	Not Relevant	--	--

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under normal conditions

#### 10.2. Chemical stability

Stable under normal conditions

#### 10.3. Possibility of hazardous reactions

may form explosive vapor / air mixtures in places not well ventilated

#### 10.4. Conditions to avoid

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- avoid the accumulation of electrostatic charges.
- keep away from heat, sources of ignition
- 10.5. Incompatible materials
  - oxidizing agents
- 10.6. Hazardous decomposition products
  - the product is flammable, following combustion can lead to the formation of dangerous decomposition products
  - by thermal decomposition can rid CO<sub>x</sub>

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#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 23300 mg/m<sup>3</sup> - Duration: 4h

Test: LD50 - Route: Skin - Species: Rat > 2920 mg/kg

Test: LD50 - Route: Oral - Species: Rat > 5840 mg/kg

GPL - CAS: 68476-40-4

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 658 mg/l

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

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#### SECTION 12: Ecological information

##### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Fish = 1.5 mg/l - Duration h: 48

Endpoint: LC50 - Species: Daphnia = 4 mg/l - Duration h: 24

GPL - CAS: 68476-40-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish Negative 19 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia Negative 14.2 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae Negative 7.7 mg/l - Duration h: 96

##### 12.2. Persistence and degradability

None

N.A.

##### 12.3. Bioaccumulative potential

N.A.

##### 12.4. Mobility in soil

N.A.

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- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

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#### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.
- Additional disposal information:  
contaminated packaging should be sent for recovery or disposal in compliance with national regulations on waste management  
reuse if possible. Product residues are to be considered hazardous waste. disposal must be entrusted to authorised waste management, in compliance with national and, where appropriate, local.

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#### SECTION 14: Transport information

- 14.1. UN number  
ADR-UN number: 1950  
IATA-Un number: 1950  
IMDG-Un number: 1950
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)  
ADR-Class: 2.5°F CAP. 2.2.2.1.6 UN1950  
IATA-Class: 2.1  
IMDG-Class: 2 Aerosols UN 1950
- 14.4. Packing group
- 14.5. Environmental hazards  
Marine pollutant: Marine pollutant
- 14.6. Special precautions for user  
IMDG-Page: 2102
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
No

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#### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
None
- Where applicable, refer to the following regulatory provisions :  
Directive 2012/18/EU (Seveso III)  
Regulation (EC) nr 648/2004 (detergents).  
Dir. 2004/42/EC (VOC directive)

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Provisions related to directive EU 2012/18 (Seveso III):  
Seveso III category according to Annex 1, part 1  
Product belongs to category: P3a, E2

15.2. Chemical safety assessment  
No Chemical Safety Assessment has been carried out for the mixture.

### SECTION 16: Other information

Text of phrases referred to under heading 3:  
H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H411 Toxic to aquatic life with long lasting effects.  
H304 May be fatal if swallowed and enters airways.  
H336 May cause drowsiness or dizziness.  
H280 Contains gas under pressure; may explode if heated.  
H220 Extremely flammable gas.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.

Hazard class and hazard category	Code	Description
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Compr. Gas	2.5/C	Compressed gas
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification  
SECTION 4: First aid measures  
SECTION 8: Exposure controls/personal protection  
SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data
Skin Irrit. 2, H315	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.  
Main bibliographic sources:



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ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.