

Isodecyl Pelargonate Plastecizer (IDP)

Revision date : 5/1/2017 Page: 1/9

Version: 2.0

1. Identification

Product identifier used on the label:

Isodecyl Pelargonate Plastecizer (IDP)

Recommended use of the chemical and restriction on use

Recommended use*: lubricants

* The "Recommended use" identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

RCS Rocket Motor Components, Inc. 2113 W 850 N
Cedar City, UT 84721

Telephone: +1 435-865-7100

Emergency telephone number

INFOTRAC: 1-352-323-3500

Other means of identification

Synonyms: Fatty acid ester

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

Isodecyl Pelargonate Plastecizer (IDP)

Revision date: 5/1/2017 Page: 2/9

Version: 2.0

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

Low hazard for usual industrial or commercial handling.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

This product does not contain any components classified as hazardous under the referenced regulation.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

This product is not regarded as hazardous under current OSHA Hazard Communication standard; CFR 29 Part 1910.1200.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Seek medical attention.

If on skin:

Wash thoroughly with soap and water.

If irritation develops, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If irritation develops, seek medical attention.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed

Isodecyl Pelargonate Plastecizer (IDP)

Revision date: 5/1/2017 Page: 3/9

Version: 2.0

Note to physician

Treat according to symptoms (decontamination, vital functions), no

known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, dry powder, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Breathing protection required.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).

Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

Place absorbed material in the same container as the spilled substance/product for disposal.

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Isodecyl Pelargonate Plastecizer (IDP)

Revision date: 5/1/2017 Page: 4/9

Version: 2.0

8. Exposure Controls/Personal Protection

Advice on system design:

Ensure adequate ventilation. Ensure adequate ventilation.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Respiratory protection in case of vapour/aerosol release.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Autoignition:

Safety glasses with side-shields.

General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form: liquid

Odour: ester-like, slight odour

Odour threshold: No applicable information available.

Colour: light yellow

pH value: insoluble

Melting point: -73.0 °C

Boiling point: not determined

Sublimation point: No applicable information available.

Flash point: $>= 150.00 \, ^{\circ}\text{C}$ (ASTM D92)

Flammability: not flammable

Lower explosion limit: For liquids not relevant for classification

and labelling. The lower explosion point may be 5 - 15 °C below the flash point.

Upper explosion limit: For liquids not relevant for classification

and labelling. not determined

Vapour pressure: The product has not been tested.

Density: 0.8640 g/cm3 (20.0 °C)

0.8550 - 0.8660 (25.0 °C) (ASTM D4052)

g/cm3

Relative density:

Vapour density:

No applicable information available.

No applicable information available.

Self-ignition not self-igniting temperature:

Thermal decomposition: No decomposition if stored and handled as

prescribed/indicated.

Viscosity, dynamic: No applicable information available.

Viscosity, kinematic: >= 1.50 mm2/s (100 °C) (ASTM D445) <= 850.00 mm2/s (-54 °C) (ASTM D445)

Solubility in water: slightly soluble

Isodecyl Pelargonate Plastecizer (IDP)

Revision date: 5/1/2017 Page: 5/9

Version: 2.0

Solubility (quantitative):

No applicable information available.

Solubility (qualitative): No applicable information available.

Evaporation rate: Value can be approximated from Henry's

Law Constant or vapor pressure.

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

not fire-propagating Reactions with

water/air:

Reaction with: water

Flammable gases: no
Toxic gases: no
Corrosive gases: no
Smoke or fog: no
Peroxides: no

Reaction with: air Flammable gases: no Toxic gases: no Corrosive gases: no Smoke or fog: no Peroxides: no

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Peroxides: 0.000 %

The product does not contain peroxides.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

The product is chemically stable.

Conditions to avoid

Avoid open flames.

Incompatible materials

strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products known.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Isodecyl Pelargonate Plastecizer (IDP)

Revision date : 5/1/2017 Page: 6/9

Version: 2.0

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Primary routes of entry

Dermal contact.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion.

Oral

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg (OECD Guideline 420)

Inhalation

No applicable information available.

Dermal

No applicable information available.

Assessment other acute effects

No applicable information available.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the eyes.

Not irritating to the skin.

<u>Skin</u>

Species: rabbit Result: non-irritant

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Eye

Species: rabbit Result: non-irritant

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Sensitization

Assessment of sensitization: Based on available Data, the classification criteria are not met.

Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: None known

Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Isodecyl Pelargonate Plastecizer (IDP)

Revision date : 5/1/2017 Page: 7/9

Version: 2.0

Carcinogenicity

Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Other Information

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Further important symptoms and effects are so far not known.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Toxicity to fish

LC50 > 100 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

EC0: > 100 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria).

Elimination information

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulative potential

Assessment bioaccumulation potential

No data available.

Mobility in soil

Isodecyl Pelargonate Plastecizer (IDP)

Revision date: 5/1/2017 Page: 8/9

Version: 2.0

Assessment transport between environmental compartments

No data available.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Not hazardous;

NFPA Hazard codes:

Health: 0 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 0 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:

RCS Rocket Motor Components Safety Division

May 1, 2017

Isodecyl Pelargonate Plastecizer (IDP)

Revision date : 5/1/2017 Page: 9/9

Version: 2.0

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