

This Product Safety Summary document is a high-level summary intended to provide the general public with an overview of product safety information on this chemical substance. It is not intended to provide emergency response, medical or treatment information, or to provide a discussion of all safety and health information. This document is not intended to replace the (Material) Safety Data Sheet. Warnings and handling precautions provided below are not intended to replace or supersede manufacturers' instructions and warning for their consumer products which may contain this chemical substance.

1. Chemical Identity

Jayflex™ 441 Plasticizer is a plasticizer mixture used primarily in flexible PVC applications.

CAS No:	Chemical Name:
68515-43-5	1,2-Benzenedicarboxylic acid, di-C9 -11, branched and linear alkyl esters
3648-20-2	1,2-Benzenedicarboxylic acid, diundecyl esters

2. Product Uses

Jayflex plasticizers are primary, general-purpose plasticizers for flexible PVC used for construction and industrial applications, and durable goods.

3. Physical / Chemical Properties

Jayflex™ 441 Plasticizer is a non-hazardous material, but can accumulate static charges which may cause an ignition. Although the material has a relatively low vapor pressure, it should be handled only with adequate ventilation and in areas where ignition sources have been removed (e.g. open flames, static electricity sources, unprotected light switches). The flash point is > 94°C / 201°F.

4. Health Information

Jayflex Plasticizer is generally recognized to have low acute toxicity if ingested, inhaled or after skin contact. This material has a low order of chronic toxicity. Aerosol concentrations exceeding the oil mist exposure limit of 5 mg/m³ in the air may present slip hazards in an occupational setting. This product is not regarded as an eye or skin irritant, mutagen, carcinogen, reproductive, developmental, or nervous system toxicant.

5. Additional Hazard Information

No special requirements under ordinary conditions of use and with adequate ventilation.

6. Food Contact Regulated Uses

This product is not claimed as compliant for food contact uses.

7. Environmental Information

Jayflex™ 441 Plasticizer is not expected to cause short-term toxicity to fish or other aquatic organisms because of its low toxicity and low solubility in water. Long-term effects (chronic aquatic toxicity) are not expected because of low toxicity and biodegradation that results in a low potential for chronic exposure to aquatic organisms (following, for example, an accidental spill). This material readily biodegrades and will not persist in the environment.

8. Exposure Potential

- **Workplace exposure** – This refers to potential exposure in a manufacturing facility or through use in various industrial applications. Generally, exposure of personnel in manufacturing facilities is relatively low because the low vapor pressure limits exposure potential and the process, storage and handling operations are enclosed. The ExxonMobil recommended occupational exposure limit (OEL) for oil mist is 5 mg/m³ per 8-hour work day.
- **Consumer use of products containing the material** – This chemical is not sold directly to the public for general consumer uses. With respect to its use as a plasticizer in PVC applications, minimal consumer exposure is expected in view of the tight binding of the plasticizer within the PVC matrix. Therefore, minimal consumer exposure is foreseen since the consumer is only indirectly exposed through the use of products which may contain high molecular weight phthalate esters and uptake is expected to be low.
- **Environmental releases** – As a chemical manufacturer, we are committed to operating in an environmentally responsible manner everywhere we do business. Our efforts are guided by in-depth scientific understanding of the environmental impact of our operations, as well as by the social and economic needs of the communities in which we operate. Industrial spills or releases are rare; however a spill may pose a significant flammability issue. Our operational improvement targets and plans are based on driving incidents with real environmental impact to zero and delivering superior environmental performance.

9. Manufacture of Product

- **Process** – Mixture.

10. Risk Management

- **Workplace Risk Management** – When using this product, make sure that there is adequate ventilation. Always use chemical resistant gloves to protect your hands and skin and always wear eye protection such as chemical goggles. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If this product gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. Please refer to the (Material) Safety Data Sheet.
- **Consumer Risk Management** - This chemical is not sold directly to the public for general consumer uses. As a result of its use in plasticizer applications, exposure of the majority of consumers is not expected. Therefore, minimal consumer exposure is foreseen since the consumer is only indirectly exposed and uptake is expected to be low. Always follow manufacturers' instructions, warnings and handling precautions when using their products.

11. Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use and/or disposal of this chemical and may vary by city, state, country or geographic region. Additional helpful information may be found by consulting the relevant ExxonMobil (Material) Safety Data Sheet at:

- <http://www.msds.exxonmobil.com>

12. Conclusion Statements

Jayflex™ 441 Plasticizer ...

- is used in plasticizer applications.
- is low in toxicity.
- does not cause adverse health or environmental effects at levels typically found in the workplace or environment.
- should only be used with good ventilation; avoiding all ignition sources.

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