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Technical Bulletin Dual Slip-A-Way

Oil Based Bio Slip Agent

Product Description:

CASTLE Dual Slip-A-Way is a unique balanced formulation of specialty non-hazardous oils and vegetable oil derivatives, with heavy duty activity suited to more difficult bituminous materials. It has been specifically designed to provide a high level of operator health and safety and to minimise adverse impact on the environment.

- Ready to use formulation
- Easy to apply
- Performs well under difficult situations such as "trap-door" deliveries and "carry-back" jobs, open graded asphalt and poly modified bitumen
- Ideal as an anti-stick agent for asphalt working tools
- Maintains performance and workability at low temperatures
- Very cost effective due to its low use rate
- May allow multiple deliveries per single application
- Provides a high level of operator health and safety due to it's low toxicity, low volatility and bland odour characteristics
- Not classified as a Dangerous Good enabling more flexible and convenient storage, handling and transportation
- Environmentally friendly Unique formulation provides faster and more complete biodegradation for a cleaner and safer environment

Application:

Apply the minimum amount of CASTLE Dual Slip-A-Way required to cover all working surfaces. Avoid excess application which may result in running or pooling of product. A typical application requires approx. 300mL to 500mL per truck. CASTLE Dual Slip-A-Way may also be applied by hand sprayer, brush or mop. Working tools can be protected by simply immersing in undiluted product.

CAUTION - Avoid use on rubber or latex as CASTLE Dual Slip-A-Way can penetrate these materials and cause shape distortion or softening.

Appearance Clear yellow to amber oily liquid

Odour Bland oily Pour point ~ - 10°C Cloud point ~ + 5°C Flash point >150°C Viscosity (25°C) 10c St SG (20°C) 0.85

VOC <1%

20 Lt. Containers 200 Lt. Drums 1000Lt I.B.C.'s



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Avoid exposure to air for prolonged periods. Product may thicken or solidify if cooled below $0\hat{A}^{\circ}C$. Do not allow water to contaminate product. Long term storage in mild steel tanks may result in product discoloration and other degradation. CASTLE Dual Slip-A-Way is free of aromatic and polycyclic aromatic hydrocarbons and is not classified as a dangerous good. It is non hazardous and considered of low risk to health if used according to appropriate industrial hygiene practices. Ensure good ventilation during use. Skin and eye contact should be avoided.

CASTLE Dual Slip-A-Way is biodegraded by natural processes and poses a low risk to the environment. For maximum life cycle, CASTLE Dual Slip-A-Way should be stored in a cool place (<40°C) in its original sealed container. As a quality assured manufacturer, Castle Chemicals has a stringent Quality assurance programme. As part of this regime, the label on this product shows a batch number and date of manufacture. This product has a shelf life of 12 months from the label printed date of manufacture.

Biodegradability of Castle Chemicals 'Dual Slip-A-Way' asphalt release agent Biodegradability describes the process of natural or 'biological' breakdown and degradation of organic materials. The rate of biodegradation is affected by the nature of the material, the level and type of microbial activity, temperature, degree of aeration, presence of water and other environmental factors. Inorganic materials are not generally deemed to 'biodegrade', but organic materials such as surfactants will be degraded in this way. All organic materials will eventually 'biodegrade', however; more important is the time that this degradation takes. Hence, the much used term "biodegradable" really has no meaning at all when used alone. Any definition needs to be more specific. To this end, the OECD (Organisation for Co-Operation and Development) has a standard to define Biodegradability, OECD 301. Australia and New Zealand have a similar standard ASNZ 4351.

With reference to the above standards, they split the nature of classification of the biodegradable organic surfactants within our products as either 'Readily' biodegradable or 'inherently 'biodegradable:

The organic surfactants used in the product have been proven to degrade by 70% or more in 28 days under test conditions. The compound will not persist in the environment.

The organic surfactants used in the product have been proven to degrade by between 20% and 70% within 28 days under test conditions. The compound is unlikely to persist in the environment.

Castle Dual Slip-A-Way contains 100% by weight of 'Readily' Biodegradable organic material that degrades >70% within the 28 day window.

For and on Behalf of Castle Chemicals

Graham Hatfield Bsc. MRSC (UK)

Chief Chemist / Technical Manager.



SHELF LIFE: As a quality assured manufacturer, Castle Chemicals has a stringent Quality assurance programme. As part of this regime, the label on this product shows a batch number and date of manufacture. This product has a shelf life of 12 months from the label printed date of manufacture. This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Castle Chemicals assumes no responsibility for personal injury or property damage to vendees, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of material.

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