

A clean shift from white spirit or kerosene

Energy lives here



Key advantages

- Efficient cleaning
- Optimum control of cleaning process
- Improved worker protection and comfort
- Globally available



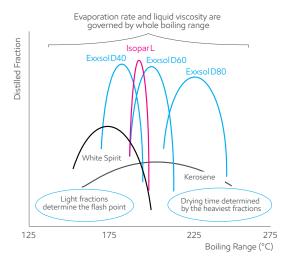
Put science on your side

Cleaning with Exxsol™ D or Isopar™ cleaning solvents has numerous benefits versus traditional solvents for both workers and the environment. Both kerosene and white spirit are straight-run refinery products with a high degree of variability. They contain sulfur, have an aromatic content as high as 30%, and are classified as "toxic to aquatic life with long lasting effects" under GHS classification.

Not all solvents are the same

Some solvents can adversely affect machined parts. Some may not dry the way you need them to. ExxonMobil offers a range of lower-toxicity premium solvents specifically suited for the cleaning of machined parts. In addition to meeting your performance expectations, these cleaning solvents offer the potential to improve your manufacturing processes, the quality of the goods you produce and their perceived value to your customers.

Narrow boiling range for optimized formulations



Exxsol™ D solvents

Purified by a hydrogenation process, Exxsol D hydrocarbon cleaning solvents effectively dissolve and remove cutting fluids, greases, protective oils and similar contaminants. They can also remove waxes and surfactants under mechanical agitation such as brushing, wiping or ultrasound.

Rely on Exxsol D40, Exxsol D60 and Exxsol D80 solvents for easy tailoring to your cleaning conditions and your preferred balance of drying time, evaporation rate and safe operating conditions.

Features

- High degree of quality consistency with predictable solvent performance
- Broad range of grades with various volatilities, enabling tailored drying times
- Non-corrosive to metals typically used in industry
- Narrow distillation range, delivering consistent drying times up to 30% faster versus traditional hydrocarbon solvents with similar flashpoint
- Low aromatic content (typically < 0.5%), delivering low odor, lower toxicity and lower aggressivity to elastomers
- Lower risk exposure than traditional hydrocarbon solvents (for example, at least four times lower than white spirit for Exxsol D40)
- · Globally available

Benefits

- Efficient cleaning
- Optimum control of your cleaning process
- Compatible with most plastics and elastomers
- Improved worker protection and comfort
 - Significantly higher occupational exposure limits and lower risk of overexposure to vapor
 - Improved working environment
- Lower operating costs
 - Faster, more efficient cleaning process
- Easy to filter and recycle
- Recycled product consistency maintained over time with potential for lower solvent usage
- Potential for reduced compliance costs

	ExxonMobil Solve	nts	Traditional Solvents	
Performance	Exxsol D40	Exxsol D60	Exxsol D80	White Spirit Kerosene
Odor*	30x less 30x less		30x less	Reference Reference
Occupational Exposure Limit (mg/m³)	1200	1200	1200	300 200
Flash Point °C (typical) Asia Americas Europe	48 44 41	65 64 65	81 83 78	42 36-59
Boiling Range °C (typical) Asia Americas Europe	167 161 155 191 199 192	186 190 185 213 211 215	206 207 204 238 237 238	155-193 154-249
GHS Labeling for Environmental Hazards	None	None	None	<u>(£)</u>

All comparisons of product performance and safety data are to kerosene and white spirit unless otherwise stated * Scale ED50 levels. Tests methods available on request.

Source for OELs of Exxsol D solvents and white spirit (Varsol 40): RCP - TWA - ExxonMobil data. OEL for kerosene is ACGIH recommended.

Isopar[™] solvents

These high-purity synthetic isoparaffinic solvents are preferred for industrial cleaning in a low odor, safer working environment. Virtually odorless, these cleaning solvents make your workplace more pleasant for employees. In addition to effectively dissolving and removing cutting fluids, greases, protective oils and similar contaminants, Isopar solvents can also remove waxes and surfactants with mechanical agitation such as brushing, wiping or ultrasound.

Choose Isopar solvents for your toughest cleaning challenges, including parts with complex geometry that may be difficult to clean and dry. The low surface tension of Isopar G, Isopar H and Isopar L solvents ensures that it gets to areas that other solvents cannot reach. Dirt is flushed away more effectively, and the drying process is faster. These advanced solvents are especially suitable for repeated use, supported by filtration or redistillation processes.

Features

- Excellent product consistency
- Compatible with most plastics and elastomers
- High chemical and thermal stability
- Narrow distillation range, for optimal compromise between high flash point and drying time
- Virtually odorless, with an aromatic content less
- Significantly lower risk exposure than traditional hydrocarbon solvents (at least ten times lower than white spirit for Isopar L)
- · Globally available

Benefits

- Efficient cleaning
- Optimum control of your cleaning process
- Can be repeatedly reused
- Improved worker protection and comfort
 - Significantly higher occupational exposure limits and lower risk of overexposure to vapor
 - Improved working environment

	ExxonMobil Solvents		Solvents	Traditional Solvents	
Performance		Isopar L		White Spirit	Kerosene
Odor*	60x less		S	Reference	Reference
Occupational Exposure Limit (mg/m³)	1200			300	200
Flash Point °C (typical) Asia Americas Europe	66	62	68	42	36-59
Boiling Range °C (typical) Asia Americas Europe	185 198	190 208	190 210	155-193	154-249
GHS Labeling for Environmental Hazards	None			E	L

All comparisons of product performance and safety data are to kerosene and white spirit unless otherwise stated.

* Scale ED50 levels. Tests methods available on request.
Source for OELs of Isopar L solvents and white spirit (Varsol 40): RCP - TWA - ExxonMobil data. OEL for kerosene is ACGIH recommended.



Contact us for more information:

exxonmobilchemical.com exxsol.com isopar.com

©2015 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its $territories \ of interest. \ We \ expressly \ disclaim \ liability for any loss, \ damage \ or injury \ directly \ or indirectly \ suffered \ or incurred$ as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.