

WATER WASHABLE TACKY FLUX
LEADED SOLDERING
EXCELLENT WETTING PROPERTIES

PRODUCT APPLICATION & HIGHLIGHTS

AMTECH™ NWS-4400-HA-TF is formulated for syringe, stencil printing, and rework applications on all PCB surface finishes. NWS-4400-HA TF may be used for BGA sphere attachment and reballing. NWS-4400-HA TF is also designed to work on all flip chip bumping and chip scale packaging sites.

- ❏ REM1 flux classification
- ❏ Wide process window
- ❏ Optimized for lead-free and standard alloy systems
- ❏ Excellent wetting compatibility on most board finishes
- ❏ Complies with REACH articles 33 and 67 of regulation (EC) No. 1907/2006

TEST RESULTS

TEST J-STD-004 OR OTHER REQUIREMENTS (AS STATED)	TEST REQUIREMENT	RESULT
Copper Mirror	IPC-TM-650: 2.3.32	M: <50% breakthrough
Corrosion	IPC-TM-650: 2.6.15	M: minor
Quantitative Halides	IPC-TM-650: 2.3.28.1	M: <0.05%
Electrochemical Migration	IPC-TM-650: 2.6.14.1	L: <1 decade drop (cleaned)
Surface Insulation Resistance 85°C, 85% RH@ 168 Hours	IPC-TM-650: 2.6.3.7	L: 100 M (cleaned)
Viscosity Malcom @ 10 RPM/25°C (x103mPa/s)	IPC-TM-650: 2.4.34.4	20-48
Visual	IPC-TM-650: 3.4.2.5	Clear and free from precipitation
Conflict Minerals Compliance	Electronic Industry Citizenship Coalition (EICC)	Compliant
REACH Compliance	Articles 33 and 67 of regulation (EC) No 1907/2006	Contains no substance >0.1% w/w that is listed as a SVHC or restricted for use in solder materials

CLEANING POST SOLDERING

This product is a water washable tacky flux that can be left on the board for many SMT assemblies. For applications requiring cleaning, NWS-4400-HA-TF can be cleaned using di-ionized water at 40-60°C with a recommended water pressure of 30-50 PSI. NWS-4400-HA-TF can also be cleaned using commercially available flux residue remover such as INVENTEC Promoclean™ and Promosolv™ cleaning chemistries.

Inventec has over 60 years' experience in high-tech cleaning for aqueous and solvent based systems. Our solder materials are aligned with our cleaning solutions, which guarantees excellent cleaning with our materials.

PROCESS TYPE	DEFLUXING SOLUTIONS
Manual	Quicksolv™ DEF90, Quicksolv™ DEF70, Promoclean™ TP61
Aqueous (Immersion or spray)	Promoclean™ DISPER 607, Promoclean™ DISPER 707, Promoclean™ DISPER 800
Co-solvent	Topklean™ EL 80 + Promosolv™ rinsing solvents
Mono-solvent (vapor phase)	Promosolv™ 70ES, Promosolv™ 70IS

Other products available, depending on specific customer requirements. Check also our maintenance cleaning solutions.

PACKAGING, STORAGE & SHELF LIFE

- ❏ To ensure the best product performance, the recommended storage temperature is at room temperature (20°C to 25°C).
- ❏ For an optimal preservation, store cartridges & syringes in a vertical position, tip downwards.
- ❏ Shelf-life is 12 months when properly stored

AVAILABLE PACKAGING



SYRINGE
10cc (10g) /
30cc(30g)



JAR
75g / 150g

SOLDERING
CLEANING
COATING
COOLING

HEALTH, SAFETY & ENVIRONMENT

No issues when used as recommended. In accordance with the Annex II of Directive 2011/65/UE (RoHS), including its amendments, we certify that this product does not contains quantities above 0.1% of Hg, Pb, Cr VI, PBB, PBDE, DEHP, BBP, DBP, DIBP and above 0.01% of Cd. INVENTEC PERFORMANCE CHEMICALS also fulfills its direct obligations under the REACH and Conflict Mineral regulations. Please refer always to the Safety Data Sheet (SDS or MSDS) prior to use. Our SDS can be downloaded at www.quickfds.com. We will request to provide your email address, so we can automatically send you a new version of the SDS when a future update would occur.

TECHNICAL SUPPORT & FREE-OF-CHARGE TESTING

Inventec has a worldwide dedicated Technical Support team to help you along the various stages of our cooperation.

Depending on your request, we provide online or onsite support

- to select the right product based on your specific needs
- to assist you in your product qualification process
- to guide you with the initial set up of your process at all your worldwide manufacturing facilities
- to provide fast response on technical issues which could occur at any time during mass production

When flux cleaning is necessary, customers are welcome to visit our CLEANING CENTERS to witness the process firsthand and experience the effectiveness of our solutions. We offer both aqueous- and solvent-based processes.

Inventec is unique in the world by developing not only cleaning materials but also soldering and coating solutions. These materials are very closely linked with each other from a process point of view. Talking to our Technical Team, who understands very well these 3 different product groups, will help you greatly to overcome technical challenges within your overall process.

Contact our technical support via contact@inventec.dehon.com or your local sales representative.

ABOUT INVENTEC & AMTECH

Inventec™ is a global provider of SOLDERING, CLEANING, COATING, COOLING materials for Electronic, Semiconductor and Industrial applications. For over 60 years we have shown leadership in innovation by putting HEALTH IMPACT, SUSTAINABILITY and RELIABILITY at the core of our product development.

With ISO 9001 & 14001 production sites in France, Switzerland, USA, Mexico, Malaysia and China we can guarantee a smooth and cost-effective supply chain.

We supply to many industries but the excellent performance of our products in applications which demand high reliability, leads us to focus especially on the AUTOMOTIVE, AEROSPACE, SEMICONDUCTOR, ENERGY and MEDICAL industry.

Inventec™ acquired AMTECH™ in 2014, from where it received the rights to manufacture and commercialize the AMTECH™ product range. Inventec™ will remain supplying AMTECH™ products to our worldwide customers but aligned according our Inventec™ branding policy. If you are in doubt that you are buying genuine AMTECH™ product, you can contact us to check if your supply source is an authorized distributor or re-seller. AMTECH™ products are mainly produced in the USA.



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SOLDERING

CLEANING

COATING

COOLING

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will INVENTEC PERFORMANCE CHEMICALS be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

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