

Hydrocarbon Solvents Product Stewardship Summary

(CAS numbers – refer to list at end of this document)

What are Hydrocarbon Solvents?

Hydrocarbon Solvents (HCS) are produced via the distillation of crude oil, similar to the process used for motor fuels. The resulting hydrocarbon solvents contain paraffinic, naphthenic and aromatic components in various proportions. The composition of individual products within this group is determined by the refining parameters.

How are Hydrocarbon Solvents used?

Hydrocarbon Solvents are widely used in oil extraction (e.g. vegetable oil), dry cleaning, paint manufacturing, degreasing/cleaning and the colour printing of fabrics.

Health, Safety and Environmental Considerations

Most hydrocarbon solvents are highly flammable, even at room temperature. This means that any environment where hydrocarbon solvents are being used needs to be well ventilated. As the vapour is heavier than air, it may spread along the ground, so care needs to be taken that the vapour is not ignited by a distant source.

Hydrocarbon solvents are static accumulators. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Prior to handling any hydrocarbon solvent, people need to be thoroughly trained to recognise and safely manage all aspects of the risks associated with static electricity.

Care should be taken not to ingest liquid hydrocarbon solvents, because they may be aspirated into the lungs and result in severe lung damage and possibly death. As a first aid measure, vomiting should not be induced and medical attention should be sought immediately.

Like many solvents, high concentrations of HCS vapour will cause dizziness, a feeling of drunkenness and headaches and may be irritating to the respiratory tract and eyes. Exposure to an accidental release may cause short-term effects but should not result in long-term effects.

Specific occupational exposure limits (OELs) are available for HCS; they are in the range of 100 - 1200 mg/m³ depending on which components are present in the products.

Environmental classification of hydrocarbon solvents is dependent on the composition of the product and ranges from "not classified for the environment to 'H410: very toxic to aquatic life with long lasting effects'" according to GHS/CLP. Safety data sheets should be consulted to obtain the relevant environmental classification for each product.

Storing and Transporting of Hydrocarbon Solvents

Some HCS are flammable and can therefore be dangerous to transport or store. Appropriate guidelines and regulations should be followed.

Risk Characterization Summary

Risks associated with exposure to these products have been evaluated for the following “chain-of-commerce” activities: manufacture, storage, product transfer, transportation, and customers/markets. They are manufactured, stored and transported to customers in closed systems. Depending on the customer, applications may vary from use as an intermediate for the manufacture of other chemicals, commercial products or certain formulated consumer products. Proper equipment design and handling procedures maintain low risk exposure where used as an intermediate. Exposures may be higher in commercial and consumer applications. To minimise risk, additional controls, such as special handling procedures and protective packaging are implemented.

Applicable CAS numbers:

78-78-4	64741-68-0	64742-81-0	64742-95-6
109-66-0	64741-73-7	64742-82-1	93924-07-3
110-54-3	64742-47-8	64742-88-7	
142-82-5	64742-48-9	64742-89-8	
64741-65-7	64742-49-0	64742-94-5	

NOTE: CAS numbers are broad descriptors that also include less refined products which should not be confused with hydrocarbon solvents. The Hydrocarbon Solvents Producers Association (HSPA) has developed a nomenclature that for the EU that is an alternative descriptor than CAS numbers. Further information on the HSPA naming convention and REACH registration of solvents can be found at:

http://www.reachcentrum.eu/Consortia%20Documents/P1163/Other/P-1163_HSPA_Naming_convention_2011.03.pdf

<http://www.reachcentrum.eu/en/consortiumslt/consortia-under-reach/hydrocarbon-solvents-reach-consortium.aspx>

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the chemical’s applicable [Safety Data Sheet](#), which should be consulted before use of the chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.



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