

FORENSIC ANALYSIS OF SUPPLY CHAIN INTEGRITY: A CASE STUDY OF EVYAP SABUN MALAYSIA SDN BHD V SAMAJU KIMIA SDN BHD

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ABSTRACT

In today's global manufacturing landscape, the safety and quality of consumer products, from pharmaceuticals to everyday food additives, rely on solid foundation for the integrity of the chemical supply chain. This study discusses the forensic complexities involved when raw materials are compromised, focusing on the specific of Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd (2024) MLJU 3168. The lawsuit was brought about after the delivery of 40 MT of Isopropyl Alcohol (IPA) was found to be contaminated with Methanol (0.2%), a toxic contaminant that could affect the production of ingredients used in the food and personal care sectors. Investigators were able to identify the contamination from the initial detection of an unusual peak in the internal Quality Assurance (QA) data along with independent laboratory testing, and the contamination was traced to an issue in transport tanker cleaning procedures used to move Methanol. The final ruling affirms the manufacturer's entitlement to receive goods of merchantable quality under the Sale of Goods Act 1957 and International Commercial Terms 2020 (Incoterms 2020) and adopts the principles of *res ipsa loquitur* to establish the supplier liability. In conclusion, this study indicates the importance of robust forensic practices like the preservation of retained samples and thorough logistic backtracking for the maintenance of the security of the supply chain and preventing consumer exposure to unsafe food.

Introduction

Today, in the industrial world, the quality of raw materials can make the difference between a safe and viable product line. In industries that supply ingredients to pharmaceuticals, food additives and personal care products, a disruption in the supply chain can result in massive economic impact and serious health issues for the public. The case of *Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd* (2024) MLJU 3168 is a stark reminder of the difficulties that can arise during delivery when the industrial chemicals are contaminated.

This battle centered around the delivery of 40 metric tonnes of Isopropyl Alcohol (IPA) which went on to be found to have a high level of Methanol. It wasn't a quick discovery, it was a chance find when an unusual peak was identified during routine chemical testing during production that was not in line with years of quality trends. This initial red flag triggered a thorough investigation that included third party chemical profiling, internal testing and a history of the delivery vehicles. This paper addresses the rationale of the court and the forensic evidence which led to a judicial finding of liability for this failure in the logistics chain against the supplier in respect of the Delivery Duty Paid (DDP) terms of the contract.

Sale of Goods Act 1957

The main statutory guidance to be followed in this dispute is the Sale of Goods Act 1957 (SOGA) Section 16 of which sets out the implied conditions of quality and fitness for goods. Under Section 16(1)(a) there is an implied term that goods are reasonably fit for the purpose for which they are required, where the buyer relies on the skill of the seller. The court referred to *Union Alloy (M) Sdn Bhd v. Sykt Pembinaan Yeoh Tiong Lay Sdn Bhd*'s four preconditions and explained that because the Defendant had supplied the Plaintiff for 3 years, the court was satisfied that Defendant knew the Isopropyl Alcohol (IPA) was used for high purity pharmaceutical and personal care products. In addition, Section 16(1)(b) requires the goods to be merchantable; the court determined that the IPA with the 0.2% Methanol was not merchantable because it was not safe for the Plaintiff's production needs or industrial practices.

Contracts Act 1950

The damages in this case were to be assessed in accordance with Section 75 and Section 74 of the Contracts Act 1950 which restate on the common law principle formulated in *Hadley v. Baxendale*. These provisions allow for the damages to be awarded if a party to a contract suffers losses that are "foreseeable" in the "natural course of events" or "known to the parties to be likely to occur" in connection with a breach of contract. The court ruled that the direct material loss suffered by the Plaintiff of RM800 081.00 was a foreseeable occurrence from the failure in the supply chain and thus the Defendant was found liable for such loss. The court, however, dismissed other claims which included loss of business opportunity as not sufficiently proven or too remote.

Evidence Act 1950 and the Maxim of Res Ipsa Loquitur

The forensic determination of liability was based on the principle that the burden of proof was on the party seeking the verdict in that case, in accordance with Section 101(1) of the Evidence Act 1950. The contamination was a hidden flaw that would have developed within the logistics chain, so the court could apply the maxim of *Res Ipsa Loquitur* ("the thing speaks for itself"). This maxim is applicable in the case of a single occurrence which would not normally occur without negligence, and the object which caused the damage was under complete management and control of the Defendant. The Plaintiff then gave the Defendant lab reports and tanker history of previous Methanol cargoes, and the evidentiary burden then shifted to the Defendant to provide a rebuttal, which they did not do.

International Commercial Terms 2020 (Incoterms 2020)

Under the terms of the Delivery Duty Paid (DDP), the delivery obligations in the contract were determined. DDP meant that Defendant as the seller was responsible for all risks and responsibility for the IPA until it arrived at Plaintiff's premises and included specific responsibilities to ensure the transport vehicles were properly maintained and cleaned to eliminate contamination. The court dismissed the Defendant's argument on the basis that the risk transferred after delivery orders were signed, but, in the

case of chemical products, a signature on an order does not constitute "deemed acceptance" of quality as it is not something that can be checked by the naked eye but needs to be analyzed by forensic laboratory

Fact of the case

The relationship started in earnest on September 13, 2022, when the Plaintiff ordered 60 metric tonnes of IPA from the Defendant, but in October, only 40 metric tonnes or 2 batches of the shipment were delivered. Importantly, the terms of the Purchase Order required the Defendant to ensure that the goods were delivered under Incoterms 2020 (DDP), meaning the Defendant was solely responsible for the goods being delivered in proper condition and free of contamination and in properly maintained vehicles. Both of these were sent by tanker, BPS 6957 and TCC 2168. The court pointed out that the delivery orders were originally signed by Plaintiff, but chemical impurities (Methanol) are "latent defects" and cannot be detected by a simple visual examination at the time of delivery.

The contamination only came to light on November 7, 2022, when the Plaintiff's Quality Assurance team noticed an "odd peak" in their finished product graph. The Plaintiff was immediately alerted to any quality issue when they received their samples from both IPA deliveries. The above tests were also confirmed by another testing company, Lotus Laboratory Services (M) Sdn Bhd, which determines the presence of Methanol at 0.2% in the samples. The scientific analysis showed that a compound called Methyl Tetradecanoate is produced during Methanol reaction with Myristic Acid, one of the key raw materials manufactured by the Plaintiff. The next audit of the tankers' history found the source: Both vehicles had previously transported Methanol for their last three jobs and had not been washed prior to carrying the Plaintiff's IPA.

Summary of the case

The case of *Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd* [2024] MLJU 3168 introduces some important matters regarding industrial accountability and supply chain integrity. The dispute started when the Defendant (Samaju Kimia) submitted a claim for outstanding balance of RM172 480.00 for the delivery of Isopropyl Alcohol (IPA). In response, Evyap Sabun (the Plaintiff) filed a counterclaim totaling over RM7 million, alleging that the IPA supplied was contaminated with Methanol, which compromised their production batches and resulted in significant material and operational losses. On hearing the case, the High Court found the Defendant liable for breach of the duty of care and for his failure to meet the legal requirement of "merchantable quality" for the raw materials supplied. As a result, the court ruled that this outstanding payment was not owed to the Plaintiff and awarded him RM800 081.00 for the actual material losses and RM19 800.00 for the loss of production time.

Means of Evidence

Documentary Evidence

In the case of *Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd*, documentation evidence in the case covers:

Purchase Order (PO) No. 1000194472 and Incoterms 2020:

The Plaintiff's Procurement Department issued this document to make the order for 60 metric tonnes of Isopropyl Alcohol (IPA) officials. The PO clearly stated that the delivery was to be made on Delivery Duty Paid (DDP) terms to the Plaintiff's premises under Incoterms 2020 which imposed a legal obligation on the Defendant to keep the transport vehicles in good order and to ensure that the goods were delivered to the premises free from contamination. In the court context, this document sets out contractual parameters and the Defendant's obligations in respect of the integrity of the supply chain.

Third Party Laboratory Reports (Lotus Laboratory Services (M) Sdn Bhd):

The Plaintiff ordered a forensic examination from an independent lab after seeing the "odd peak" in the routine internal testing performed by the QA and QC Department. These reports verified the presence of 0.2% Methanol in the IPA samples from both deliveries, and traces of Methyl Ester in the final products (IPM and IPP) that were produced as a result of the reaction of the contaminant. The objective forensic evidence from this report was used as proof of non-conformance of the implied condition of 'merchantable

quality' in Section 16(1)(b) of the Sale of Goods Act 1957 and the raw materials being unfit for their intended use in the industry.

The Tanker Movement Sheets and Delivery History Checklists:

These were supplied by the Logistics and Transport providers (Fimachem Sdn Bhd) and documented the usage history of the delivery vehicles BPS 6957 and TCC 2168. The records showed that the last cargo carried by both tankers before the delivery of the IPA was Methanol, and the checklists expressly stated that the tanks had not been washed before the delivery of the IPA. These documents were crucial in the application of the legal principal *res ipsa loquitur* because they enabled the court to deduce negligence as the contamination was happening and the goods were solely under the management and control of the Defendant's logistics chain.

Delivery Orders (DO) and General Conditions of Acceptance:

Evidence was tendered by the Defendant in the form of the signed Delivery Orders, which included an acknowledgement "Goods received in good order/condition". The Defendant contended that these signatures were "deemed acceptance" and transferred the risk to the Plaintiff. The court, however, found that these documents were to be read in conjunction with the General Conditions in the PO and concluded that, in the context of chemical goods, a signature upon the DO did not waive a buyer's right to reject goods that were latent or were of such a nature that they would require laboratory analysis to detect.

Financial Loss Records and Statements:

Prepared by the Plaintiff's Regional Finance Control, these documents quantified the "Direct Material Loss" caused by the contamination. These financial records provided the necessary evidence to satisfy the burden of proof under Section 101(1) of the Evidence Act 1950 and Section 74 of the Contracts Act 1950, allowing the court to award damages of RM800,081.00 by proving the actual quantum of loss sustained by the Plaintiff.

Physical Evidence

In this instance the physical evidence consisted of the material that was used to conduct the forensic chemical analysis of finding Methanol. The evidence consisted of samples of Isopropyl Alcohol (IPA) that the Plaintiff's Quality Control Team retained from the two delivery tankers BPS 6957 and TCC 2168 before unloading it into the storage tanks. In addition, the Plaintiff offered proof of the finished product, namely Isopropyl Myristate (IPM) and Isopropyl Palmitate (IPP), which were made with the Defendant's IPA. These were physical samples and they helped to identify the presence of "odd peaks" during the chromatography testing and thus, scientifically proved that the raw materials were contaminated with 0.2% Methanol which helped to arrive at the conclusion that goods were not meeting the required specifications and were unmerchantable.

Witnesses Evidence

The court concluded that the testimony of the four witnesses for the Plaintiff (SP-1, SP-2, SP-3 and SP-4) and one witness for the Defendant (DW-1) supported the court's conclusions. SP-1 (Plaintiff's QA/QC Manager) testified to the initial discovery of the "odd peak" during routine testing and the back-tracing process leading to identification of the Defendant's IPA as the source of contamination. An expert witness, SP-2 (Lotus Laboratory Services Quality Manager) confirmed the Methanol content of 0.2% of the finished product by independent third-party analysis. As for the financial damages as a result of the breach, SP-3 (Regional Finance Director) submitted verified financial statements of direct losses suffered as a result of the breach, which entitles the court to award damages of RM800 081.00. The Plaintiff also summoned SP-4 (Manufacturing Director) to give evidence about how the operation was affected. The Defendant's only witness, DW-1 (Manager of Samaju Kimia) testified that the risk had been transferred after delivery, but the court did not believe this testimony because the evidence was not sufficient to contradict the forensic findings or prove that the delivery tankers had been adequately cleaned.

Issues Involving Halal Forensic

Islamic Jurisprudence

The concept of Halalan Toyyiban and Raw Material Integrity

The term Halalan Toyyiban (lawful and wholesome) is an integral part in Islamic jurisprudence for consumer safety. Halal refers to that which is permitted and unrestricted by Islamic law, encompassing all human sources, whether from animals, plants, natural resources, chemicals, or microorganisms, to which the laws of halal and haram are applied (Sungit et al., 2022). This is clearly based on the command of the Quran: "O mankind, eat from whatever is on earth [that is] lawful and good and do not follow the footsteps of Satan. Indeed, he is to you a clear enemy (Al-Baqarah, 2:168) and "And eat of what Allah has provided for you [which is] lawful and good." (Al-Maidah, 5:88). These verses and principles emphasize that for any substance used in production to be considered toyyib, it must be clean, safe, and free from any elements that could cause harm to human health.

Moreover, the main goal of the Halal supply chain management is to make sure that the products are not just acceptable, but also physically pure, wholesome, and free from uncertainty, repulsive, and impure elements during the acquisition, processing, and handling of materials (Mohd Sirajuddin, 2024). In this case, the Isopropyl Alcohol (IPA) was a critical raw material for personal care and pharmaceutical products. The toxic impurity, Methanol, was found in the material, at 0.2% which meant that it did not meet the purity standards required for consumer safety and thus was not toyyib. In addition, if a halalan toyyiban raw material is mixed with hazardous goods or exposed to hazardous environments, the material becomes exposed to risks that may render it hazardous and detrimental to human health and even life (Omar et al., 2013). The problem with the tankers BPS 6957 and TCC 2168 that had transported Methanol last as an un-clean load, was a direct violation of the requirement for a hygienic and cross-contamination free supply chain. Therefore, the court's judgment is based on the need to respect the integrity of raw materials which is an integral part of the Halalan Toyyiban standard.

The Principles of Proactive Care (La Darar Wala Dirar) and Harm Elimination (Ad-Darar Yuzal)

The legal integrity of the supply chain in this case is regulated by two basic Shariah principles: La Darar Wala Dirar and Ad-Darar Yuzal. The principle of La Darar Wala Dirar (No harm and no reciprocal harm) is a principle that prohibits people from inflicting harm upon themselves or others whether intentionally or unintentionally (CelikTafsir, 2026; Trust, 2026). This is a proactive duty of care that requires suppliers to take steps to ensure that the logistics and handling processes are free of any elements that could cause injury. In the case of Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd, the defendant failed to ensure that transport tankers were free from Methanol contamination before they delivered Isopropyl Alcohol (IPA) to the plaintiff, which is the clear violation of this duty and the beginning of the chain of harm suffered by the plaintiff.

Where contamination is found the principle of Ad-Darar Yuzal (Harm must be eliminated) becomes the remedial action, which means that any cause of harm to an individual, others or the environment must be eliminated or prevented (Al- Bakri, 2024). This maxim serves as an extensive basis for any intervention, current, future or past. In this case, the forensic detection of 0.2% Methanol provided the objective evidence of harm required to invoke Ad-Darar Yuzal. With the application of *res ipsa loquitur*, the court essentially put this maxim into action, holding that the defendant's carelessness required some mitigation of damage by giving the plaintiff some compensation to complete the integrity of the chain of supply.

Halal Management Standard and Regulation

The case highlights, on a management level, the importance of forensic traceability for the security of a production chain. The Plaintiff was able to implement a back-tracing procedure to try to establish the delivery history of both tankers, BPS 6957 and TCC 2168, who had delivered their previous three cargoes of Methanol. Management records, specifically tanker movement sheets and inspection checklists, showed that these vehicles were not washed prior to loading the Isopropyl Alcohol (IPA). This type of detailed documentation is crucial when it comes to preventing cross contamination with impurities or prohibited substances and ensuring the purity of raw materials from their source to delivery to the factory in a Halal management system.

In addition, a succession of quality control practices, including retained samples and conformance with legal requirements, affords strong protection of product purity. By testing retained samples from the contaminated deliveries, the Plaintiff's Quality Assurance team detected an "odd peak" on analytical graphs that deviated from normal patterns, which forensic testing later confirmed to be 0.2% Methanol. The Sale of Goods Act 1957 and Delivery Duty Paid (DDP) terms of Incoterms 2020 provided the necessary legal evidence to demonstrate that the goods were not merchantable or fit for their purpose. The integration of forensic science and secular law could provide a strong enforcement measure against Halal standards and ensure that the supplier is held to a higher standard for hidden defects that pose a risk to consumers safety and product integrity.

Halal Science and Forensic

Halal science and forensic analysis are the main ways of verifying integrity of raw materials in the supply chain as an empirical check of possible non-conformance. In this instance, Gas Chromatography (GC) and systematic chemical analysis were critical in the identification of Methanol, which would not have been detected by standard visual checks (Ashurst, 2025). The presence of an "odd peak" on the gas chromatogram and the discovery of 0.2% Methanol is an example of the importance of modern forensic tools for achieving the required standards of purity and safety for the use of chemicals.

Moreover, forensic back-tracing was found to be an important tool in determining accountability. The Plaintiff established objective, scientific proof that cross-contamination took place because of the failure of the logistics management in the transport of tankers BPS 6957 and TCC 2168. Importantly, this combination of science and forensics is key in the Halal industry, as thinking turns abstract quality into concrete data. Finally, this case highlights that Halal forensics is not only about testing for prohibited substances but also about protecting the consumer by guaranteeing that every stage in the management of the material is performed with precision and cleanliness according to the Halalan Toyyiban standard.

Health Implication

The health hazards posed by a 0.2% Methanol mixed with Isopropyl Alcohol (IPA) are serious, especially when the contaminated Isopropyl Alcohol (IPA) is used in the production of ingredients for personal care products, pharmaceuticals, or food-grade products (Thiravetyan et al., 2026). Methanol is toxic by itself, and its ingestion or skin absorption may cause serious physiological effects, such as neurological toxicity and organ damage, depending on the concentration of exposure (Dear et al., 2020; Lanska, 2025). This forensic finding of the presence of Methyl Tetradecanoate was particularly disturbing as it indicated that the impurity was not only reacting with the IPA, but also with other raw materials, including Myristic Acid. This chemical change generates new, unapproved and potentially dangerous products, making it difficult to conduct a toxicological profile of the end-user products.

If the Plaintiff's Quality Assurance team had not noticed the "odd peak" in their analytical graphs, these contaminated products would have without doubt made it to the public market. The spread of such products would be a serious health hazard and could lead to generalized reactions by unsuspecting consumers. This situation highlights the importance of forensic monitoring in industrial production, not only because of financial damage, but also because of the far-reaching effects of chemical contamination. The Plaintiff stopped the contaminated batches and prevented a public health incident, which is proof that stringent quality control and forensic verification of chemical safety are necessary and essential measures in protecting the public from life-threatening chemicals.

Conclusion

The case of *Evyap Sabun Malaysia Sdn Bhd v Samaju Kimia Sdn Bhd* [2024] MLJU 3168 underscores the importance of the role of industrial suppliers in safeguarding the integrity of the supply chain. The court's ruling went beyond just a contract issue – it was a recognition that quality control and scientific vigilance are essential in the global supply chain. The court reaffirmed that product quality is a non-negotiable standard that is crucial for consumers' safety, for which the supplier must be held strictly liable if they fail to sanitize their transport tankers.

In the case of the Halal industry, this is just one example of how forensic science is an essential tool in the fight to ensure the Halalan Toyyiban principle. Laboratory testing, including gas chromatography, as

well as protocols and procedures for retaining samples and forensic back-tracing, represent a solid defense system to safeguard both manufacturer and end customer (Azmi et al., 2024). In the end, this decision means that responsibility will always be paramount in industrial production, which will guarantee that the products delivered to the community will always be safe, pure and beneficial, thus safeguarding the public interest as required by Islamic law.

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