

November 27, 2018

Dear all:

Company Name: Harima Chemicals Group, Inc.
Representative: President Yoshihiro Hasegawa
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Report on Additional Acquisition of Stocks of SunPine AB

Harima Chemicals Group, Inc. (the Company) announced that the Company acquired stocks of SunPine AB owned by Kiram, a shareholder of SunPine, through its subsidiary Lawter B.V. (Lawter), established in January 2011 and headquartered in the Netherlands. SunPine manufactures fatty acid for biodiesel and tall oil rosin from crude tall oil (CTO) in Sweden.

This stock acquisition increases Lawter's shareholding ratio of SunPine to 24.6%, which has made SunPine an equity method affiliated company in its consolidated financial statements.

The information below is an outline for this acquisition.

REPORT

1. Reason for Stock Acquisition

Harima Chemicals Group, Inc., in regard to rosin, the major raw material, manufactures tall oil rosin by distilling CTO in Japan and New Zealand, while manufacturing gum rosin in Brazil and Argentine as well as procuring gum rosin in China, Indonesia, and Vietnam. Thus, it has been utilizing tall oil rosin and gum rosin as raw materials.

Lawter invested in SunPine in 2012. SunPine used the investment to build the tall oil rosin distillation facility and started its operation in 2015. Until then, the components that remained after abstracting the tall fatty acid from the CTO, a mixture of tall oil rosin and tall oil pitch, had been used as fuel. However, separating the rosin components through distillation enables an effective use of the materials. Thereby, Lawter has been able to stably procure tall oil rosin, its major raw material, in Europe, one of its major markets.

SunPine has been successfully expanding its business since the tall oil rosin distillation facility started its operation, and now it is planning to increase its tall-oil-processing capacity by 50% by the year 2020.

The Company, through this stock acquisition, plans to reinforce its business foundation and promote its sales in Europe with its major products including resins for printing ink and tackifier for adhesive.

2. Outline of the Company from which Stocks were Acquired.

(1) Name	Kiram AB
(2) Location	Norra Villavägen 17, 237 34 Bjärred, Sweden
(3) Representative	Lars Stiggson

3. Date of Stock Acquisition

November 22, 2018, Japan Standard Time (JST)

4. Acquisition Value

20.4 million euros (approximately 2.62 billion yen)

5. Number of Acquired Shares & Status of Shares Owned before and after the Acquisition

(1) Number of shares owned before acquisition	6,640 shares (Holding ratio: 10.0%)
(2) Number of shares acquired	9,664 shares (Acquisition ratio: 14.6%)
(3) Number of shares owned after acquisition	16,304 shares (Holding ratio: 24.6%)

6. Impact of Consolidated Results

The impact of this stock acquisition on this year's consolidated results is expected to be minor at this moment.

【REFERENCE】

Lawter B.V.

Location: Amsterdam, the Netherlands

Representative: Ichiro Taninaka, President & CEO

Founding of the company: January 2011

URL: www.lawter.com

Major business: Researching and developing, manufacturing and selling rosin-related products including resins for printing ink, resins for tackifier, emulsion for synthetic rubber, turpentine rectified oil.

SunPine AB

Company name: SunPine AB

Location: Pitea, Sweden

Representative: Magnus Edin

Founding of the company: 2006 (Started its operation in 2010)

Capital: 6.6 million Swedish krona

Sales: 1.203 billion Swedish krona (Approximately 15.07 billion yen in 2017)

URL: www.sunpine.se

Major business: Manufacturing and selling tall fatty acid for biodiesel and tall oil rosin

Shareholder composition after acquisition by Lawter

Company name	Ratio of shares	Business outline
Preem AB	25.1%	The largest petroleum refiner and distributor in Sweden, a purchaser of tall fatty acid from SunPine.
Sodra	25.1%	Swedish timber and pulp producers' cooperative, providing SunPine with CTO produced as a byproduct in pulp plants.
Sveaskog AB	25.1%	The largest forest owner company in Sweden.
Lawter B.V.	24.6%	This company uses rosin as raw material, manufactures and sells resins for printing ink, resins for tackifier, and purchases tall oil rosin from SunPine.

Since Lawter increased its shareholding ratio, the shareholder composition has become more stable as a result of four companies sharing a quarter each as follows: Sveaskog, a company owning forests, a source of CTO which is used as raw materials by SunPine; Sodra produces CTO from forest resources; Preem purchases tall fatty acid which is produced by SunPine and Lawter purchases tall oil rosin.

Kiram AB

Company name: Kiram AB

Location: Norra Villavägen 17, 237 34 Bjarred, Sweden

Representative: Lars Stiggson

Founding of the company: 1989

Capital: 100,000 Swedish krona

Sales: 2 million Swedish krona (approximately 25 million yen in 2017)

Major business: Developing and commercializing pine-derived new technologies including biodiesel fuel.

Having fulfilled his role to SunPine to commercialize the production of biodiesel from CTO as its raw material, Mr. Lars Stiggson, an inventor as well as an entrepreneur, decided to sell stocks.

Crude Tall Oil (CTO)

In the pulping process, the kraft-pulp method to produce pulp through alkaline digestion of wood chips leaves black liquor behind, from which it separates lignin and water, and later employs acidic cleavage to attain CTO, which becomes a liquid material component containing resin.

Distillation separates this CTO into rosin, fatty acid, and pitch.

* “Tall” in Swedish means “pine.” “Tall oil” therefore means “pine oil.” Harima Chemicals started tall oil rectification business in Kakogawa, Hyogo, in 1958 for the first time in Japan. It has been maintaining the position as a pioneer of tall oil business since then. Currently, its subsidiary, Harima MID, also located in Kakogawa, is the only business in Japan that conducts tall oil rectification, using approximately 60,000 tons of CTO as raw material annually. It produces approximately 20,000 tons of tall oil rosin as well as the same amount of tall fatty acid.

Tall Oil Pitch

The high boiling black material contained in CTO, which remains semisolid at normal temperature. It is equivalent to asphalt produced in petroleum refining.

Tall Oil Rosin

Rosin is a natural material obtained from pines and is composed of plural resin acids mostly including abietic acid. The tall rosin is produced from CTO as raw material.

Biodiesel Fuel:

In general, biodiesel fuels are produced from bio-derived oils, such as rapeseed oil and soybean oil as main raw materials. They employ chemical processing like methyl esterification and

blend the processed oil with light mineral oil up to 20% to make it usable in diesel engines. Preem AB, a shareholder of SunPine, mixes tall fatty acid provided by SunPine with light mineral oil up to 50% and cracks it by using a catalyzer to change it into low-boiling hydrocarbon to produce biodiesel fuel. Crude-oil-derived biodiesel has been drawing attention as the inedible-raw-material-derived as well as a method to drastically reduce CO2.

[Background]

EU issued the Renewable Energy Directive in June 2009, making it an obligation to achieve the goal of increasing the ratio of renewable energy up to 20% of final energy consumption within the region in 2020. The member states are obligated to achieve these goals.

The member states have been utilizing biomass resources to achieve this goal. Sweden, above all, set the goal to increase the renewable energy ratio using biodiesel up to 49% of the final energy consumption amount, hoping to achieve the highest percentage among all members by 2020.